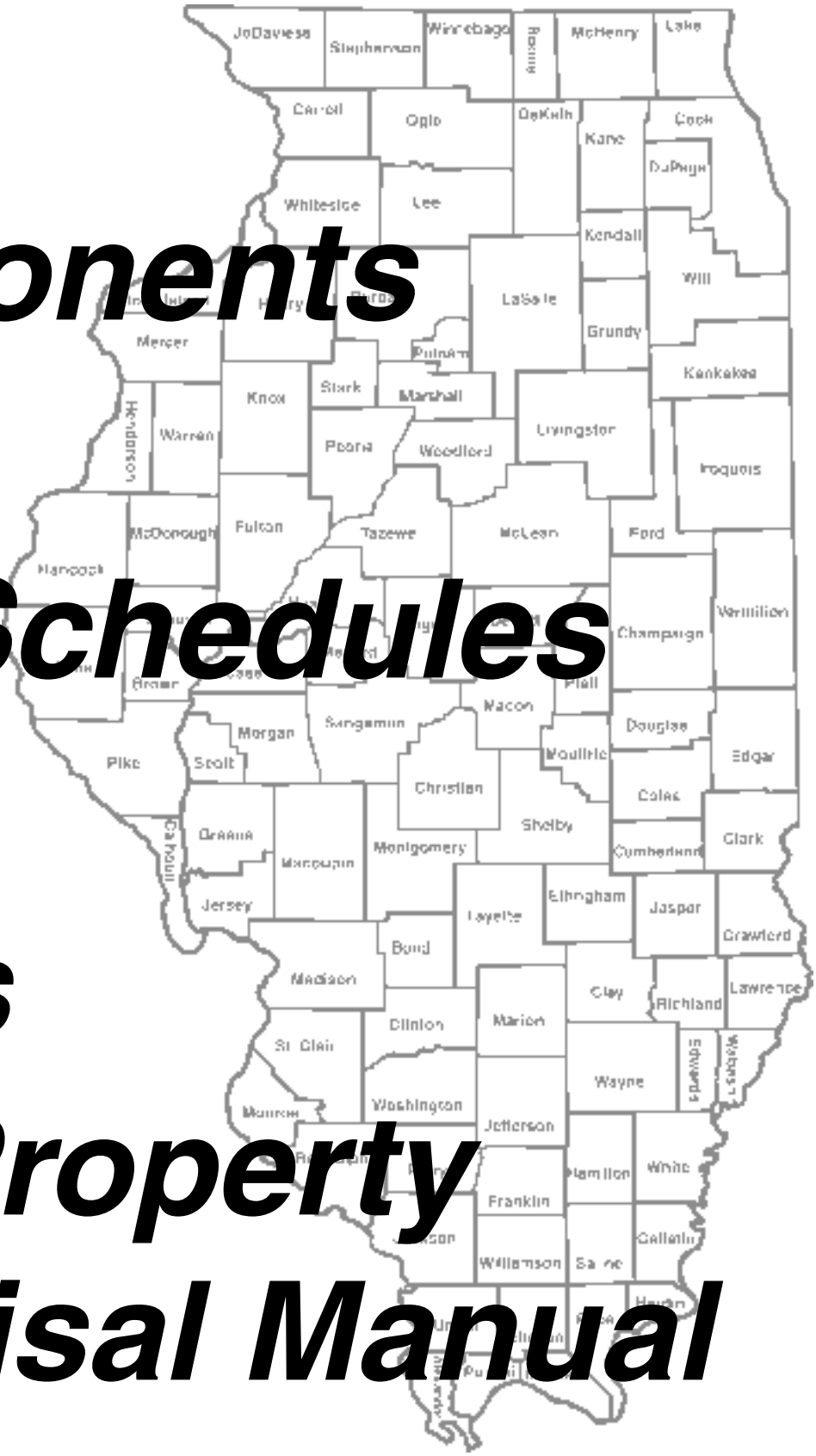
Illinois Department of Revenue

2002 Components and Cost Schedules of the Illinois Real Property Appraisal Manual



Brian A. Hamer, Director **Rod R. Blagojevich, Governor**

2002 Components and Cost Schedules of the Illinois Real Property Appraisal Manual

2000 Components and Cost Schedules of the Illinois Real Property Appraisal Manual

Residential Section
Instructions for the Residential Schedules

The residential pricing schedules have been developed to help assessors estimate the replacement cost of residential structures. It is unreasonable to expect that every building value obtained through the use of these schedules will be exact; however, the value estimates produced will be well within tolerable limits. Your professional judgement still greatly affects the outcome of this system.

Use the various residential schedules in combination to develop a replacement cost new (RCN) of a dwelling. First, using the base cost schedule, correlate the square foot ground area (SFGA) with the story height and type of exterior construction. Make adjustments to this base price for individual features of each property from the other schedules. Determine the manual's replacement cost new after the proper quality grade factor is applied.

These schedules were developed for use throughout Illinois. Use local cost factors to reflect local differences in replacement costs. After all adjustments have been completed, multiply the REL factor by the replacement cost new to arrive at an estimate of market value.

Use these schedules with PRC-2. The computation ladder on the PRC-2 acts as a guide in developing replacement cost and in developing the final estimate of market value. A detailed explanation of each individual schedule follows.

Base cost schedule —wood frame construction

This schedule applies to dwellings constructed of wood with wood lap, aluminum, vinyl, or other nailed-on siding. The base cost figure represents the RCN of a finished frame house of average construction, including a full basement, central heating system, lighting, and five standard plumbing fixtures. In this schedule, "area" refers to the square foot ground area (SFGA).

Establish the ground area of a subject dwelling and locate the replacement cost base price in the column to the right that correlates with the story height (one-story, split-level, *etc.).* Write this base price on PRC-2.

For example, a two-story wood frame house with dimensions of 30 feet by 30 feet would have a ground area of 900 square feet. Locate the replacement cost of $90,250 by reading the schedule across from 900 square feet to the column headed "2 Story & bsmt."

Base cost schedule — masonry construction

Use this schedule for dwellings of solid masonry construction or frame construction with brick or stone veneer. The application is the same as the frame schedule. Price houses of frame construction with masonry fronts or masonry trim from the wood frame schedule. Price the masonry front or trim under "Other features" on the computation ladder.

Variations from the base cost schedule

For cantilever construction, average the SFGA of the first and second floors and use this average as the ground area for two-story construction.

For a two-story house that is constructed with one floor masonry and one floor frame, average the frame and masonry schedules at the appropriate SFGA.

Value an addition to a dwelling as part of the main body of the house. If quality grade differences exist between the dwelling and the addition, reflect this in the overall grade of the dwelling. If story variations exist because of an addition, obtain the base price by schedule combining.

Summer cottages and A-Frame cottages are usually constructed for temporary or seasonal use. Generally, minimum construction standards prevail. Price these types of structures as dwellings, but generally their quality grade factor should not be greater than D.

For multi-unit buildings, such as row houses and small apartment buildings (less than six units), deduct five percent of the base price amount and refer to the appropriate plumbing schedule for each plumbing fixture in excess of five. Price each unit individually.

Base cost schedule — wood frame construction

	Stories				
SFGA	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
900	60,050	82,000	68,050	90,250	120,800
25	61,050	83,500	69,300	91,900	123,150
50	62,000	84,950	70,600	93,600	125,500
75	63,000	86,450	71,850	95,250	127,850

Residential Section

Instructions for the Residential Schedules

Schedule combining schedule — frame or masonry

Use this schedule in cases of story variations, such as structures that are part two-story and part one-story. Price each section separately from the appropriate schedules according to its ground area, number of stories, and exterior cover (frame or masonry). Write the sum of these figures (the replacement cost) as the base price.

The schedule combining schedule makes deductions for items that are included twice (*e.g.,* landscaping, kitchen cabinets, five plumbing fixtures). When obtaining two replacement costs from the base price schedules, correlate the SFGA, story height, and exterior cover of the smaller section of the dwelling in the schedule combining table. Write this figure as a deduction on the PRC on the line labeled "Schl. Comb."

Example: Suppose the 900 SF frame house in the first example has a 10' x 30' one-story frame section to one side. The two sections are priced separately from the base cost schedule.

900 SF frame two-story	$ 90,250
300 SF frame one-story	30,900
Total	$121,150

Write this total as the base price on the PRC-2. In the schedule combining table, the necessary deduction for the 300 SF frame one-story section is $11,050. Write this amount as a deduction on the "Schl. comb." line of PRC-2.

Schedule combining — frame/masonry (-)

Frame						Masonry					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story	SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
100	$ 9,800	$ 9,900	$ 9,850	$ 9,950	$ 10,150	100	$ 11,050	$ 11,150	$ 11,150	$ 11,300	$ 11,500
200	10,500	10,700	10,650	10,800	11,150	200	11,950	12,200	12,150	12,400	12,750
300	11,050	11,300	11,250	11,500	11,950	300	12,650	13,000	12,950	13,250	13,800
400	11,550	11,850	11,800	12,100	12,650	400	13,250	13,650	13,600	14,000	14,650
500	11,950	12,350	12,250	12,600	13,250	500	13,800	14,250	14,200	14,700	15,500
600	12,350	12,800	12,700	13,100	13,850	600	14,300	14,850	14,750	15,300	16,200
700	12,700	13,200	13,100	13,550	14,400	700	14,750	15,350	15,250	15,850	16,900
800	13,000	13,600	13,500	13,950	14,950	800	15,150	15,850	15,750	16,400	17,600
900	13,300	13,950	13,850	14,350	15,450	900	15,550	16,300	16,200	16,900	18,200
1,000	13,600	14,300	14,200	14,750	15,950	1,000	15,900	16,750	16,650	17,400	18,850
1,100	13,900	14,650	14,550	15,150	16,400	1,100	16,250	17,150	17,050	17,850	19,450
1,200	14,150	15,000	14,900	15,500	16,850	1,200	16,600	17,600	17,500	18,300	20,000
1,300	14,450	15,300	15,250	15,900	17,350	1,300	16,950	18,000	17,900	18,800	20,600
1,400	14,700	15,650	15,550	16,250	17,800	1,400	17,300	18,400	18,300	19,250	21,150
1,500	15,000	15,950	15,900	16,600	18,250	1,500	17,650	18,800	18,700	19,650	21,750
1,600	15,250	16,250	16,200	16,950	18,700	1,600	17,950	19,200	19,100	20,100	22,300
1,700	15,500	16,600	16,500	17,300	19,150	1,700	18,300	19,600	19,450	20,550	22,900
1,800	15,750	16,900	16,850	17,650	19,600	1,800	18,650	20,000	19,850	21,000	23,450
1,900	16,050	17,250	17,150	18,000	20,050	1,900	18,950	20,400	20,250	21,450	24,000
2,000	16,300	17,550	17,500	18,400	20,500	2,000	19,300	20,800	20,650	21,900	24,600
2,100	16,550	17,850	17,800	18,750	20,950	2,100	19,600	21,200	21,050	22,350	25,150
2,200	16,850	18,200	18,150	19,100	21,450	2,200	19,950	21,600	21,450	22,800	25,750
2,300	17,100	18,550	18,450	19,500	21,900	2,300	20,300	22,000	21,850	23,250	26,300
2,400	17,400	18,850	18,800	19,850	22,350	2,400	20,650	22,450	22,250	23,700	26,900
2,500	17,650	19,200	19,150	20,250	22,850	2,500	21,000	22,850	22,650	24,200	27,500
2,600	17,950	19,550	19,500	20,600	23,350	2,600	21,350	23,300	23,100	24,650	28,100
2,700	18,250	19,900	19,800	21,000	23,850	2,700	21,700	23,700	23,500	25,150	28,750
2,800	18,500	20,250	20,150	21,400	24,350	2,800	22,050	24,150	23,950	25,650	29,350
2,900	18,800	20,600	20,550	21,800	24,850	2,900	22,400	24,600	24,350	26,150	30,000
3,000	19,150	21,000	20,900	22,200	25,350	3,000	22,800	25,050	24,800	26,700	30,650

Residential Section
Instructions for the Residential Schedules

Log home schedule

Use this schedule for log homes. Use the Residential REL Table with this schedule.

Base price schedules include normal construction features, such as a basement, post and beam frame, log exterior walls, floors, asphalt shingled roof, drywall interior finish, forced warm air central heating, lighting, and plumbing (five fixtures).

Calculate the total base cost as described below.

- Multiply the square foot of floor area (SFFA) by the appropriate square foot cost found in the log home schedule.
- Write the total base cost in the proper space on the PRC-2.
- Make additions and subtractions using the residential schedules for other features not included with this schedule.
- Use the Residential REL Table to determine the loss in value due to physical, functional, and economic depreciation.

Log homes
Base cost per SFFA

SFFA	1 Story		1½ Story		2 Story	
	6" logs	8" logs	6" logs	8" logs	6" logs	8" logs
600	$104.85	$104.05	—	—	—	—
800	94.80	94.00	—	—	—	—
1,000	86.90	86.25	$95.95	$93.55	$105.05	$100.85
1,200	80.75	80.10	83.65	85.25	86.55	90.45
1,400	75.75	75.10	79.15	80.55	82.55	86.00
1,600	71.45	70.90	75.55	77.05	79.65	83.20
1,800	69.40	68.95	72.90	74.40	76.40	79.85
2,000	67.85	67.45	70.60	71.90	73.40	76.40
2,200	65.53	65.18	68.40	69.75	71.20	74.35
2,400	63.20	62.90	66.15	67.50	69.10	72.08
2,600	61.43	60.95	64.20	65.40	67.00	69.80
2,800	59.65	59.00	62.10	63.20	64.58	67.43
3,000	58.68	58.08	60.40	61.55	62.15	65.05
3,200	57.70	57.15	59.50	60.70	61.33	64.20
3,400	—	—	—	—	60.50	63.35
3,800	—	—	—	—	58.90	61.40

Base price schedules include normal construction features, such as a basement, post and beam frame, log exterior walls, floors, asphalt shingled roof, drywall interior finish, forced warm air central heating, lighting, and plumbing (five fixtures).

Plumbing schedule

The base price schedules include the cost of five standard plumbing fixtures: a kitchen sink, a water heater, a stool, a lavatory, and a tub or shower. Add $1,235 for each fixture over five; subtract $1,235 for each fixture less than five. Write this figure on the "Plumbing" line of the PRC-2.

Plumbing (±)

Per fixture less than standard	Deduct	$1,235
Per fixture greater than standard	Add	$1,235

Quality grade schedule

The Quality grade schedule is explained in detail in the Property Record Card System section of the Illinois Real Property Appraisal Manual (IRPAM).

Quality

Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

Residential Section
Instructions for the Residential Schedules

No heat schedule

The base price includes a central heating system, so a deduction is necessary if the dwelling does not have a central heating system. This deduction is found in the "No heat" schedule. Correlate the SFGA of the structure with the story height. Write this figure as a deduction on the "Heating/Central air" line of PRC-2.

Example: A 1½ story dwelling with 800 SFGA does not have a central heating system. In the schedule, correlate 800 SFGA with the 1½ story column to find a deduction of $4,300. Write this figure as a deduction on the "Heating/Central air" line of PRC-2.

For dwellings with gas-fired floor units, or similar permanent heating units, make a full deduction for no central heating system; then add $915 per heating unit.

For purposes of this manual, electric baseboard heat throughout a dwelling is considered a central heating system.

No heat (-)

SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	$ 1,850	$ 2,050	$ 2,250	$ 2,250	$ 2,600
400	2,250	2,700	3,100	3,100	4,100
600	2,700	3,350	4,200	4,200	5,550
800	3,150	4,300	5,300	5,300	6,800
1,000	3,550	4,950	6,150	6,150	8,000
1,200	4,300	5,900	7,000	7,000	9,200
1,400	4,700	6,550	7,850	7,850	10,400
1,600	5,450	7,250	8,700	8,700	11,600
1,800	5,850	7,900	9,500	9,500	12,800
2,000	6,300	8,550	10,350	10,350	14,000
2,200	6,750	9,200	11,200	11,200	15,200
2,400	7,150	9,850	12,050	12,050	16,400
2,600	7,600	10,500	12,900	12,900	17,600
2,800	8,050	11,150	13,700	13,700	18,800
3,000	8,450	11,850	14,550	14,550	20,000

Central air conditioning schedule

Use this schedule to adjust costs of dwellings with central air conditioning systems. To use this schedule, correlate the SFGA to the story height of the dwelling to obtain the cost of the central air conditioning system. Write this figure as an additional cost on the "Heating/Central air" line of the PRC-2.

Example: A two-story dwelling with 1,200 SFGA has a central air conditioning system. In the schedule, correlate 1,200 SFGA with the 2-story column to obtain a cost of $3,000. Write this figure as an additional cost on the "Heating/Central air" line of PRC-2.

For dwellings that require schedule combining, determine the central air conditioning cost of each section separately, using the SFGA and story height of each section. Write the sum of these individual figures, less $1,500, as the total central air conditioning cost on the PRC-2.

Central air conditioning (+)

SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	$ 1,900	$ 1,900	$ 1,900	$ 1,900	$ 1,900
400	1,900	1,900	1,900	1,900	2,050
600	1,900	2,050	2,050	2,050	2,450
800	1,900	2,200	2,200	2,450	3,000
1,000	2,050	2,450	2,450	2,600	3,900
1,200	2,050	2,600	2,600	3,000	4,850
1,400	2,200	2,750	2,750	3,900	5,200
1,600	2,450	3,900	3,900	3,900	5,550
1,800	2,450	3,900	3,900	4,850	6,650
2,000	2,600	4,850	4,850	5,000	7,750
2,200	3,000	5,200	5,200	5,350	8,000
2,400	3,000	5,200	5,200	5,550	8,300
2,600	3,000	5,350	5,350	5,950	10,200
2,800	3,900	5,550	5,550	6,650	10,600
3,000	3,900	5,550	5,550	7,750	11,700

Note: When using Schedule Combining with houses that have central air conditioning, subtract an additional $1,500.

Fireplace schedule

This schedule provides a lump sum amount for fireplace construction according to quality grade. Assign fireplaces that are 100 percent masonry a quality grade of at least a B. Write additions from this schedule in the computation ladder on the "Fireplace" line under the "Other features" column of the PRC-2.

Fireplace (+)

Quality	A	B	C	D
Fireplace & stack	$6,355	$4,275	$2,890	$1,965
2nd Fireplace on same stack	5,085	3,420	2,310	1,570

Note: 100% masonry fireplaces are B quality or better.

Residential Section
Instructions for the Residential Schedules

Finished basement schedule
This schedule is designed to estimate the cost of finishing a basement into living quarters or a recreation room. The square foot cost of the finished floor area is indicated by the quality grade factor, assigned according to the quality of workmanship and materials. A classification of finished basement, as living quarters or recreation room, is required. Multiply the figure resulting from correlation of these factors by the square feet of the finished floor basement area. Write additions from this schedule in the computation ladder on the "Finished basement" line under the "Other features" column of the PRC-2.

Finished basement (+)
Per SF of finished floor area

Quality	A	B	C	D
Recreation room	$ 6.55	$ 5.35	$ 4.35	$ 3.60
Living quarters	17.25	14.05	11.50	9.45

Partial masonry trim schedule
Use this schedule to estimate the cost of masonry trim. Correlate the type of material used with the trim's quality grade to obtain a price per square foot of surface area. Multiply this figure by the square foot surface area of the decorative trim and write it in the computation ladder on the "Pt. msnry. walls" line under the "Other features" column of the PRC-2.

Partial masonry trim (+)
Per SF of surface area

Quality	A	B	C	D
Brick	$14.85	$ 12.85	$ 10.85	$ 8.80
Stone	31.10	27.00	22.90	18.65
Artificial stone	17.05	13.65	10.30	6.80

Paving schedule
Use the paving schedule to estimate the cost of walks, driveways, and other similar slab construction. Multiply the SFGA by the square foot cost correlated to the construction material. Apply separate quality grade factors, cost factors (if applicable), and REL factor to all paved areas. Write this figure in the "Summary of Other Buildings" section of the PRC-2.

Paving (+)

Crushed Stone	$0.50/SF
Concrete	2.65/SF
Asphalt	1.75/SF

Foundation schedule
The base prices of the dwelling schedules include the cost of a full basement. Therefore, make an adjustment for a dwelling that does not have a full basement. To use this schedule, calculate the square foot area without a basement and correlate it to the appropriate construction type (crawl or slab). Write the result on the "Basement" line of the PRC-2. This is always a deduction.

Example: A dwelling has 1,000 SFGA and has a basement of 600 SF. The portion without a basement is built on a crawl space. The deduction to be made is correlated at 400 SF under the crawl space column to obtain a figure of $2,800. Write this deduction on the "Basement" line of the PRC-2.

Foundation (-)

SFGA	Crawl	Slab
100	700	1,350
200	1,400	2,700
300	2,100	4,100
400	2,800	5,450
500	3,550	6,800
600	4,250	8,150
700	4,950	9,500
800	5,650	10,900
900	6,350	12,250
1,000	7,050	13,600
1,100	7,750	14,950
1,200	8,450	16,300
1,300	9,150	17,700
1,400	9,850	19,050
1,500	10,600	20,400
Over	7.05	13.60

Ordinarily there is no basement deduction for split-level construction. However, make a deduction of $12.60 per square foot of unfinished floor area for split-level construction in which the lower level is not finished.

Residential Section
Instructions for the Residential Schedules

Stoops, decks, patios schedule

Use this schedule to estimate the cost of stoops, decks, and patios. A stoop is a porch-like floor of masonry construction, with a thickness in excess of four inches. A patio is a paved area adjacent to a house used for outdoor lounging. A deck is an outdoor patio-like platform, constructed of wood.

To use this schedule, multiply the SFGA of the stoop, deck, or patio by the square foot price correlated with the appropriate type and material. For decks, write this figure on the line below "Porches." Write the figure for stoops and patios under "Summary of Other Buildings."

An addition is not required for stoops, decks, or patios of less than 20 square feet.

Stoop, decks, patios (+)	
Stoop - masonry	$15.90/SF
Deck - wood	14.45/SF
Patio - concrete	4.60/SF
Patio - brick	12.60/SF

Garage schedule

Price all garages, whether attached or detached (except integral garages), from this schedule.

Find the replacement cost by correlating the ground area of the garage to the construction type, either frame or masonry. Write the cost of an attached garage in the computation ladder on the "Attch/integral garage" line. A (-) minus adjustment is made for an integral garage. Price garages constructed as an integral part of the main structure as part of the finished dwelling, then deduct $12.60 per square foot of garage area for on-grade and bi-level construction. Do not make a deduction for a sub-grade integral garage. List detached garages on the PRC under the "Summary of Other Buildings."

Example: A garage of frame construction with a ground area of 300 SF has an indicated replacement cost of $4,650.

Make an addition for all plumbing fixtures in the garage. Use 55 percent of the garage price for carports.

Garages (+)		
SFGA	**Frame**	**Masonry**
140	2,150	2,650
160	2,500	3,050
180	2,800	3,400
200	3,100	3,800
220	3,400	4,150
240	3,700	4,550
260	4,050	4,950
280	4,350	5,300
300	4,650	5,700
320	4,950	6,050
340	5,250	6,450
360	5,600	6,800
380	5,900	7,200
400	6,200	7,600
420	6,500	7,950
440	6,800	8,350
460	7,150	8,700
480	7,450	9,100
500	7,750	9,500
520	8,050	9,850
540	8,350	10,250
560	8,700	10,600
580	9,000	11,000
Over	15.50/SF	18.95/SF

Attic schedule

Use this schedule to estimate the cost of an attic. An attic, for the purposes of this manual, is defined as "an attic accessible by a stationary permanent staircase." In this schedule, columns headed "Finished" refer to walls, ceilings, and floors constructed to allow the attic to be used as living quarters. The "½ Finished" column is for attics partially finished, with a portion left unfinished.

To use this schedule, correlate the SFGA of the dwelling to the finish type (Unfinished, ½ Finished, Finished) to obtain the attic cost. Write this figure on the "Attic" line on the PRC-2. This figure is always an additional cost.

Attic (+)			
SFGA	**Unfinished**	**½ Finished**	**Finished**
400	$ 5,400	$ 8,400	$ 11,400
600	5,800	9,350	12,900
800	6,200	10,350	14,450
1,000	6,550	11,300	16,000
1,200	6,950	12,250	17,500
1,400	7,350	13,200	19,050
1,600	7,700	14,150	20,550
1,800	8,100	15,100	22,100
2,000	8,500	16,100	23,650
2,200	8,900	17,050	25,150
2,400	9,250	18,000	26,700
2,600	9,650	18,950	28,200
2,800	10,050	19,900	29,750
3,000	10,400	20,850	31,300

Residential Section
Instructions for the Residential Schedules

Swimming pool schedule

Use this schedule to estimate the cost of a permanent residential swimming pool. The base price includes excavation, filtering system, pump, chlorinator, ladder, and diving board. Some extra features are listed at the bottom of the schedule.

To obtain a base price, correlate the square foot of surface area (SFSA) of water to the construction type. Apply a factor of 50 percent to the base price of the vinyl liner type pool to obtain a base price for permanent type above-ground pools. Additional features, such as a patio or wood deck, are not included in this schedule. Price these features from the appropriate residential schedules. Write the calculated swimming pool value in the "Summary of Other Buildings" section of the PRC-2. Apply quality grade and CDU factors to the swimming pool separately.

Residential pools in ground (+)

Price includes excavation, filtering system, pump, chlorinator, ladder, and diving board.

SFSA	Concrete	Vinyl liner
300	$ 18,700	$ 15,400
450	23,100	17,100
525	24,600	18,700
650	27,400	20,300
800	31,100	22,300
1,000	34,100	26,000

Price permanent type above-ground pools at 50% of vinyl liner price.

Pool additions (+)

Pool heaters	
50 MBTU	$ 1,105
75 MBTU	1,290
100 MBTU	1,510

Note: Prices in this schedule represent pool costs. The extent to which a pool may enhance an individual property's market value is determined by the area or subdivision in which it is located. In certain areas, the presence of a swimming pool may even diminish market value.

Porch schedule

For purposes of this manual, a porch is defined as "an open or enclosed gallery or room, with both a roof and a floor, located on the outside of a dwelling." An awning bolted over a door does not qualify as a porch roof; and likewise, a small slab of minimum thickness concrete does not qualify as a porch floor for estimating costs from this schedule.

For the porch schedule, "area" refers to the actual SFGA of the porch. Correlate the area with the proper construction type to determine a replacement cost figure. The abbreviated column headings for construction type refer to open frame porch (OFP), enclosed frame porch (EFP), open masonry porch (OMP), and enclosed masonry porch (EMP).

Example: A porch of OFP construction, 15' x 20' is priced from the area of 300 SF correlated to the OFP construction type resulting in a replacement cost figure of $5,550.

If you are pricing more than one porch for one dwelling, price each porch separately and total the amounts to be added to the base cost of the dwelling. Do not total the square foot areas of the porches and find one amount for the total area. For two-story porches, use 150% of the appropriate porch price. Write the adjustments on the "Porches" line of PRC-2.

Porches (+)

SFGA	OFP	EFP	OMP	EMP
12	$ 850	$ 1,300	$ 950	$ 1,650
16	950	1,400	1,000	1,800
20	1,000	1,500	1,100	1,900
30	1,150	1,800	1,300	2,200
40	1,300	2,050	1,550	2,500
60	1,600	2,600	1,950	3,150
80	1,900	3,150	2,400	3,750
100	2,200	3,700	2,800	4,400
125	2,550	4,350	3,350	5,150
150	2,950	5,050	3,900	5,900
175	3,300	5,750	4,400	6,700
200	3,700	6,400	4,950	7,450
250	4,800	7,750	6,200	9,200
300	5,550	9,150	7,300	10,750
350	6,300	10,500	8,350	12,300
400	7,050	11,850	9,400	13,850
450	7,800	13,200	10,500	15,400
Over	17.35	29.35	23.35	34.20

Residential Section
Instructions for the Residential Schedules

Mobile home schedule

Use this schedule to estimate the cost of a mobile home. In this manual, a mobile home is defined as "a factory-assembled structure designed for permanent habitation, resting in whole on a permanent foundation, with wheels, tongue, and hitch removed." A "permanent foundation" would be made of material such as mortared concrete block, mortared brick, or concrete which extends into the ground below the established frost depth and to which the home is secured with foundation bolts at least one-half inch in diameter, spaced at intervals of not more than 6 feet and within 1 foot of the corners, and embedded at least 7 inches into concreted foundations or 15 inches into block foundations (Manufacturered Home Quality Assurance Act, PA 92-410). This type of structure would be taxed as real estate under the Property Tax Code (35 ILCS 200/1-130).

The base cost figure represents the RCN of an average grade mobile home including an inexpensive crawl space foundation, stairs at front and rear entrances, a central heating system, lighting, and five standard plumbing fixtures. The cost of the furnishings is not included in the base price.

To use this schedule, correlate the length and the width of the mobile home to obtain the base price. The length listed in the schedule is the manufacturer's length which includes four feet for the tow bar and coupler. Base price adjustments, such as plumbing, porches, or central air conditioning, are priced from the residential schedules. Write the base price and adjustments on the PRC-2, as you do for a regular residential dwelling.

Obtain the depreciation factor (REL) for mobile homes from the table to the right of the mobile home base cost schedule. For mobile homes with an actual age of greater than twenty years, the REL factor is 35 percent.

Mobile home schedule

Base cost includes average construction features, permanent inexpensive crawl space foundation, steps, plumbing (five fixtures), lighting, and central heating. Furniture is not included.

Width	40'	45'	50'	55'	60'	65'	70'	75'	80'
10'	$17,300	$19,050	$20,800	$22,550	$24,150	$25,800	$27,450	$29,200	$30,850
12'	19,050	20,900	22,750	24,600	26,350	28,150	29,850	31,750	33,550
14'	20,600	22,650	24,600	26,500	28,400	30,250	32,050	34,050	35,950
20'	36,450	40,050	42,500	45,400	48,200	50,950	53,600	56,600	59,400
24'	39,450	42,600	45,600	48,450	51,200	53,900	56,550	59,600	62,450
28'	42,500	45,100	48,650	51,450	54,200	56,900	59,500	62,650	65,500

Age	REL	Age	REL	Age	REL
1	87	8	55	15	41
2	80	9	52	16	40
3	74	10	50	17	39
4	69	11	48	18	38
5	65	12	46	19	37
6	61	13	44	20	36
7	58	14	43	Over 20	35

Residential Section

Residential REL Table

Schedule A												Schedule B			
Age	Effective Age					Age	Effective Age					Eff. Age	REL	Eff. Age	REL
	E	G	A	P	U		E	G	A	P	U				
1	1	1	1	18	63	70	24	39	70	102	117	1	100	73	68
2	1	1	2	19	67	71	24	40	71	102	117	2	99	74	67
3	1	1	3	21	71	72	25	41	72	102	117	3	98	75	67
4	1	1	4	22	75	73	25	42	73	102	117	4	97	76	67
5	1	1	5	24	78	74	26	43	74	103	117	5	96	77	66
6	1	1	6	26	81	75	26	44	75	103	117	6	95	78	66
7	1	1	7	29	84	76	27	45	76	103	118	7	94	79	66
8	1	1	8	32	86	77	28	47	77	104	118	8	93	80	65
9	1	2	9	35	88	78	29	48	78	104	118	9	92	81	65
10	1	3	10	38	90	79	30	49	79	104	118	10	91	82	65
11	1	4	11	41	92	80	31	51	80	105	119	11	90	83	64
12	1	5	12	44	94	81	32	53	81	105	119	12	89	84	64
13	1	6	13	47	95	82	32	55	82	105	119	13	88	85	63
14	1	6	14	50	95	83	34	57	83	106	120	14	88	86	63
15	1	7	15	54	96	84	35	59	84	106	120	15	87	87	62
16	2	8	16	57	98	85	36	62	85	107	121	16	86	88	62
17	2	8	17	60	98	86	37	64	86	107	121	17	86	89	61
18	3	9	18	63	99	87	39	66	87	108	121	18	85	90	61
19	4	10	19	66	100	88	41	68	88	108	122	19	84	91	60
20	4	10	20	69	101	89	43	70	89	109	122	20	84	92	60
21	5	11	21	72	102	90	45	72	90	109	122	21	83	93	59
22	6	12	22	74	103	91	47	74	91	110	123	22	82	94	59
23	6	12	23	76	103	92	49	76	92	110	123	23	82	95	58
24	7	13	24	78	104	93	52	78	93	111	124	24	81	96	57
25	7	14	25	79	104	94	54	79	94	111	124	25	81	97	57
26	8	15	26	81	105	95	58	81	95	112	125	26	80	98	56
27	8	15	27	82	105	96	61	83	96	113	125	27	80	99	55
28	9	16	28	83	106	97	63	84	97	113	126	28	79	100	54
29	9	17	29	84	106	98	67	85	98	114	126	29	79	101	54
30	9	17	30	84	106	99	71	87	99	115	127	30	79	102	53
31	10	18	31	85	107	100	74	89	100	116	128	31	78	103	52
32	10	18	32	86	107	101	76	90	101	116	128	32	78	104	51
33	11	19	33	87	108	102	78	92	102	117	129	33	77	105	50
34	11	20	34	88	108	103	81	94	103	118	130	34	77	106	49
35	11	20	35	88	108	104	83	95	104	118	130	35	77	107	48
36	12	21	36	89	109	105	85	97	105	119	131	36	76	108	47
37	12	21	37	90	109	106	87	98	106	120	132	37	76	109	46
38	12	21	38	90	109	107	89	99	107	121	133	38	76	110	45
39	13	22	39	91	110	108	91	101	108	121	133	39	75	111	44
40	13	22	40	91	110	109	93	102	109	122	134	40	75	112	43
41	14	23	41	92	110	110	95	103	110	123	135	41	75	113	42
42	14	23	42	92	110	111	97	104	111	124	136	42	75	114	41
43	15	24	43	93	111	112	98	105	112	125	137	43	74	115	40
44	15	24	44	93	111	113	99	106	113	126	138	44	74	116	39
45	15	25	45	94	111	114	101	107	114	126	138	45	74	117	38
46	15	25	46	94	111	115	102	108	115	127	139	46	74	118	36
47	16	26	47	95	112	116	103	109	116	128	140	47	73	119	35
48	16	26	48	95	112	117	104	110	117	129	141	48	73	120	34
49	17	27	49	95	112	118	106	112	118	130	142	49	73	121	33
50	17	27	50	95	112	119	107	113	119	131	143	50	73	122	31
51	18	28	51	96	113	120	108	114	120	132	143	51	72	123	30
52	18	28	52	96	113	121	109	115	121	133	143	52	72	124	29
53	18	29	53	97	113	122	111	117	122	134	143	53	72	125	28
54	18	30	54	97	113	123	112	117	123	135	143	54	72	126	26
55	18	30	55	97	113	124	113	118	124	136	143	55	72	127	25
56	19	31	56	98	114	125	114	119	125	137	143	56	71	128	24
57	19	31	57	98	114	126	116	121	126	138	143	57	71	129	23
58	20	32	58	98	114	127	117	121	127	139	143	58	71	130	21
59	20	32	59	98	114	128	118	122	128	139	143	59	71	131	20
60	20	32	60	98	114	129	118	123	129	139	143	60	71	132	19
61	21	33	61	99	115	130	120	125	130	139	143	61	70	133	18
62	21	33	62	99	115	131	121	125	131	139	143	62	70	134	16
63	21	34	63	99	115	132	122	126	132	139	143	63	70	135	15
64	21	35	64	99	115	133	122	127	133	139	143	64	70	136	14
65	21	35	65	99	115	134	124	129	134	139	143	65	70	137	13
66	22	36	66	100	116	135	125	129	135	139	143	66	69	138	11
67	22	37	67	100	116	136	126	130	135	139	143	67	69	139	10
68	23	37	68	101	116	137	126	131	135	139	143	68	69	140	9
69	23	38	69	101	116	138	127	131	135	139	143	69	69	141	8
												70	68	142	7
												71	68	143	5
												72	68		

See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.

Residential Section
Residential Schedules

Base cost schedule — wood frame construction

SFGA	Stories					SFGA	Stories				
	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.		1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	14,650	18,500	14,800	19,750	24,850	1,600	87,200	122,550	102,950	136,200	185,800
25	17,150	21,750	17,500	23,300	29,400	25	88,200	124,050	104,250	137,850	188,150
50	19,500	24,850	20,000	26,600	33,750	50	89,200	125,550	105,500	139,550	190,500
75	21,650	27,700	22,350	29,750	37,850	75	90,250	127,050	106,800	141,200	192,900
200	23,700	30,450	24,550	32,700	41,750	1,700	91,250	128,550	108,100	142,900	195,250
25	25,650	33,000	26,700	35,550	45,450	25	92,300	130,050	109,400	144,600	197,650
50	27,450	35,500	28,750	38,250	49,100	50	93,350	131,550	110,700	146,300	200,050
75	29,200	37,900	30,700	40,850	52,550	75	94,350	133,100	112,000	148,050	202,450
300	30,900	40,150	32,600	43,400	55,950	1,800	95,400	134,600	113,300	149,750	204,850
25	32,500	42,400	34,450	45,800	59,200	25	96,450	136,150	114,600	151,500	207,250
50	34,050	44,500	36,250	48,200	62,400	50	97,550	137,700	115,950	153,200	209,650
75	35,550	46,600	37,950	50,500	65,500	75	98,600	139,250	117,250	154,950	212,100
400	37,000	48,600	39,650	52,700	68,550	1,900	99,700	140,850	118,600	156,750	214,550
25	38,400	50,600	41,300	54,900	71,550	25	100,750	142,400	119,950	158,500	217,000
50	39,750	52,500	42,900	57,050	74,450	50	101,850	144,000	121,300	160,250	219,450
75	41,100	54,350	44,500	59,100	77,300	75	102,950	145,600	122,650	162,050	221,950
500	42,350	56,200	46,050	61,150	80,150	2,000	104,100	147,200	124,050	163,850	224,450
25	43,600	58,000	47,550	63,150	82,900	25	105,200	148,800	125,400	165,650	226,950
50	44,850	59,750	49,050	65,150	85,600	50	106,350	150,400	126,800	167,450	229,450
75	46,050	61,500	50,500	67,100	88,300	75	107,450	152,050	128,150	169,300	231,950
600	47,250	63,200	51,950	69,000	90,950	2,100	108,600	153,700	129,550	171,150	234,500
25	48,400	64,850	53,400	70,850	93,550	25	109,800	155,350	130,950	172,950	237,050
50	49,500	66,500	54,800	72,700	96,150	50	110,950	157,000	132,400	174,850	239,600
75	50,650	68,150	56,150	74,550	98,700	75	112,100	158,700	133,800	176,700	242,150
700	51,750	69,750	57,550	76,350	101,250	2,200	113,300	160,400	135,250	178,600	244,750
25	52,800	71,350	58,900	78,150	103,750	25	114,500	162,100	136,700	180,450	247,350
50	53,900	72,900	60,250	79,900	106,250	50	115,700	163,800	138,150	182,350	249,950
75	54,950	74,450	61,550	81,700	108,700	75	116,950	165,500	139,600	184,300	252,550
800	55,950	76,000	62,900	83,400	111,150	2,300	118,150	167,250	141,050	186,200	255,200
25	57,000	77,500	64,200	85,150	113,600	25	119,400	169,000	142,550	188,150	257,850
50	58,000	79,000	65,500	86,850	116,000	50	120,650	170,750	144,000	190,100	260,500
75	59,050	80,500	66,750	88,550	118,400	75	121,900	172,500	145,500	192,050	263,200
900	60,050	82,000	68,050	90,250	120,800	2,400	123,150	174,300	147,000	194,050	265,900
25	61,050	83,500	69,300	91,900	123,150	25	124,450	176,100	148,500	196,050	268,600
50	62,000	84,950	70,600	93,600	125,500	50	125,750	177,900	150,050	198,050	271,300
75	63,000	86,450	71,850	95,250	127,850	75	127,050	179,700	151,600	200,050	274,050
1,000	64,000	87,900	73,100	96,900	130,200	2,500	128,350	181,550	153,100	202,050	276,800
25	64,950	89,350	74,350	98,550	132,550	25	129,700	183,400	154,700	204,100	279,550
50	65,900	90,800	75,600	100,200	134,900	50	131,000	185,250	156,250	206,150	282,350
75	66,900	92,250	76,850	101,800	137,200	75	132,350	187,150	157,800	208,250	285,100
1,100	67,850	93,650	78,100	103,450	139,500	2,600	133,750	189,000	159,400	210,300	287,950
25	68,800	95,100	79,350	105,100	141,850	25	135,100	190,900	161,000	212,400	290,750
50	69,750	96,550	80,550	106,700	144,150	50	136,500	192,850	162,600	214,500	293,600
75	70,700	98,000	81,800	108,350	146,450	75	137,900	194,750	164,200	216,650	296,450
1,200	71,650	99,400	83,050	109,950	148,750	2,700	139,300	196,700	165,850	218,800	299,300
25	72,600	100,850	84,250	111,600	151,050	25	140,700	198,650	167,450	220,950	302,200
50	73,600	102,250	85,500	113,200	153,350	50	142,150	200,600	169,100	223,100	305,100
75	74,550	103,700	86,750	114,850	155,650	75	143,600	202,600	170,800	225,250	308,050
1,300	75,500	105,150	87,950	116,450	157,950	2,800	145,050	204,600	172,450	227,450	310,950
25	76,450	106,550	89,200	118,100	160,250	25	146,500	206,600	174,100	229,650	313,900
50	77,400	108,000	90,450	119,700	162,550	50	148,000	208,650	175,800	231,900	316,900
75	78,400	109,450	91,700	121,350	164,900	75	149,500	210,700	177,500	234,150	319,900
1,400	79,350	110,900	92,900	123,000	167,200	2,900	151,000	212,750	179,250	236,400	322,900
25	80,300	112,350	94,150	124,600	169,500	25	152,500	214,800	180,950	238,650	325,900
50	81,300	113,800	95,400	126,250	171,800	50	154,050	216,900	182,700	240,950	328,950
75	82,250	115,250	96,650	127,900	174,150	75	155,600	219,000	184,450	243,250	332,000
1,500	83,250	116,700	97,900	129,550	176,450	3,000	157,150	221,100	186,200	245,550	335,050
25	84,250	118,150	99,150	131,200	178,800	Over	52.40/SF	73.70/SF	62.05/SF	81.85/SF	111.70/SF
50	85,200	119,600	100,450	132,850	181,100						
75	86,200	121,100	101,700	134,500	183,450						

Base price schedules include normal construction features, such as foundation, basement and basement walls, all exterior walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.

Residential Section
Residential Schedules

Base cost schedule — masonry construction

SFGA	Stories: 1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	15,750	20,000	16,600	22,550	27,600
25	18,450	23,550	19,550	26,550	32,700
50	20,950	26,900	22,300	30,300	37,500
75	23,300	30,000	24,900	33,800	42,050
200	25,500	32,950	27,300	37,150	46,400
25	27,600	35,750	29,650	40,300	50,550
50	29,550	38,450	31,850	43,300	54,550
75	31,450	41,000	34,000	46,200	58,450
300	33,250	43,500	36,050	49,000	62,200
25	34,950	45,850	38,050	51,700	65,800
50	36,650	48,200	39,950	54,300	69,350
75	38,250	50,450	41,850	56,850	72,850
400	39,800	52,600	43,650	59,300	76,200
25	41,300	54,750	45,400	61,700	79,500
50	42,750	56,800	47,150	64,050	82,750
75	44,200	58,850	48,800	66,350	85,950
500	45,550	60,850	50,450	68,550	89,050
25	46,900	62,750	52,050	70,750	92,150
50	48,250	64,650	53,650	72,900	95,200
75	49,550	66,550	55,200	75,000	98,150
600	50,800	68,400	56,700	77,100	101,100
25	52,050	70,200	58,250	79,150	104,000
50	53,250	72,000	59,700	81,150	106,900
75	54,450	73,750	61,150	83,100	109,750
700	55,650	75,500	62,600	85,100	112,550
25	56,800	77,200	64,050	87,000	115,350
50	57,950	78,900	65,450	88,950	118,100
75	59,100	80,600	66,850	90,850	120,850
800	60,200	82,250	68,200	92,700	123,550
25	61,300	83,900	69,600	94,550	126,250
50	62,400	85,550	70,950	96,400	128,950
75	63,500	87,150	72,300	98,250	131,600
900	64,600	88,750	73,650	100,050	134,250
25	65,650	90,350	74,950	101,850	136,900
50	66,700	91,950	76,300	103,650	139,550
75	67,750	93,550	77,600	105,450	142,150
1,000	68,800	95,150	78,900	107,200	144,750
25	69,850	96,700	80,200	109,000	147,350
50	70,900	98,250	81,500	110,750	149,950
75	71,950	99,850	82,800	112,500	152,500
1,100	72,950	101,400	84,100	114,300	155,100
25	74,000	102,950	85,400	116,050	157,650
50	75,050	104,500	86,650	117,800	160,250
75	76,050	106,050	87,950	119,550	162,800
1,200	77,100	107,600	89,250	121,300	165,350
25	78,100	109,150	90,550	123,050	167,900
50	79,150	110,700	91,800	124,750	170,500
75	80,200	112,250	93,100	126,500	173,050
1,300	81,200	113,800	94,400	128,250	175,600
25	82,250	115,350	95,650	130,000	178,150
50	83,250	116,900	96,950	131,750	180,700
75	84,300	118,450	98,250	133,500	183,300
1,400	85,350	120,000	99,550	135,300	185,850
25	86,400	121,600	100,850	137,050	188,400
50	87,450	123,150	102,150	138,800	191,000
75	88,500	124,700	103,450	140,600	193,550
1,500	89,550	126,300	104,750	142,350	196,150
25	90,600	127,900	106,050	144,150	198,750
50	91,650	129,450	107,400	145,950	201,350
75	92,750	131,050	108,700	147,700	203,950

SFGA	Stories: 1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
1,600	93,800	132,650	110,050	149,500	206,550
25	94,900	134,250	111,350	151,350	209,150
50	95,950	135,850	112,700	153,150	211,800
75	97,050	137,500	114,050	154,950	214,400
1,700	98,150	139,100	115,400	156,800	217,050
25	99,250	140,750	116,750	158,650	219,700
50	100,400	142,400	118,100	160,500	222,350
75	101,500	144,050	119,450	162,350	225,000
1,800	102,650	145,700	120,850	164,200	227,700
25	103,750	147,350	122,250	166,100	230,400
50	104,900	149,050	123,600	168,000	233,100
75	106,050	150,700	125,000	169,900	235,800
1,900	107,250	152,400	126,400	171,800	238,500
25	108,400	154,100	127,850	173,700	241,250
50	109,550	155,850	129,250	175,650	243,950
75	110,750	157,550	130,700	177,600	246,700
2,000	111,950	159,300	132,150	179,550	249,500
25	113,150	161,050	133,600	181,550	252,250
50	114,400	162,800	135,050	183,500	255,050
75	115,600	164,550	136,500	185,500	257,850
2,100	116,850	166,350	138,000	187,500	260,650
25	118,100	168,150	139,450	189,550	263,500
50	119,350	169,950	140,950	191,550	266,350
75	120,600	171,750	142,450	193,600	269,200
2,200	121,900	173,600	144,000	195,650	272,050
25	123,150	175,400	145,500	197,750	274,950
50	124,450	177,300	147,050	199,800	277,850
75	125,750	179,150	148,600	201,900	280,750
2,300	127,100	181,000	150,150	204,050	283,700
25	128,400	182,900	151,700	206,150	286,650
50	129,750	184,800	153,300	208,300	289,600
75	131,100	186,700	154,900	210,450	292,550
2,400	132,500	188,650	156,500	212,650	295,550
25	133,850	190,600	158,100	214,850	298,550
50	135,250	192,550	159,700	217,050	301,600
75	136,650	194,500	161,350	219,250	304,650
2,500	138,050	196,500	163,000	221,500	307,700
25	139,500	198,500	164,650	223,750	310,750
50	140,950	200,500	166,300	226,000	313,850
75	142,400	202,550	168,000	228,300	316,950
2,600	143,850	204,600	169,700	230,600	320,050
25	145,300	206,650	171,400	232,900	323,200
50	146,800	208,700	173,100	235,250	326,350
75	148,300	210,800	174,850	237,600	329,550
2,700	149,800	212,900	176,600	239,950	332,750
25	151,350	215,000	178,350	242,350	335,950
50	152,900	217,150	180,100	244,750	339,150
75	154,450	219,300	181,900	247,150	342,400
2,800	156,000	221,450	183,700	249,600	345,700
25	157,600	223,600	185,500	252,050	348,950
50	159,200	225,800	187,300	254,550	352,250
75	160,800	228,000	189,150	257,000	355,600
2,900	162,400	230,250	190,950	259,550	358,900
25	164,050	232,500	192,850	262,050	362,300
50	165,700	234,750	194,700	264,600	365,650
75	167,350	237,000	196,600	267,150	369,050
3,000	169,050	239,300	198,500	269,750	372,450
Over	56.35/SF	79.75/SF	66.15/SF	89.90/SF	124.15/SF

Base price schedules include normal construction features, such as foundation, basement and basement walls, all exterior walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.

Residential Section
Residential Schedules

Schedule combining — frame/masonry (-)

Frame						Masonry					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story	SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
100	$ 9,800	$ 9,900	$ 9,850	$ 9,950	$ 10,150	100	$ 11,050	$ 11,150	$ 11,150	$ 11,300	$ 11,500
200	10,500	10,700	10,650	10,800	11,150	200	11,950	12,200	12,150	12,400	12,750
300	11,050	11,300	11,250	11,500	11,950	300	12,650	13,000	12,950	13,250	13,800
400	11,550	11,850	11,800	12,100	12,650	400	13,250	13,650	13,600	14,000	14,650
500	11,950	12,350	12,250	12,600	13,250	500	13,800	14,250	14,200	14,700	15,500
600	12,350	12,800	12,700	13,100	13,850	600	14,300	14,850	14,750	15,300	16,200
700	12,700	13,200	13,100	13,550	14,400	700	14,750	15,350	15,250	15,850	16,900
800	13,000	13,600	13,500	13,950	14,950	800	15,150	15,850	15,750	16,400	17,600
900	13,300	13,950	13,850	14,350	15,450	900	15,550	16,300	16,200	16,900	18,200
1,000	13,600	14,300	14,200	14,750	15,950	1,000	15,900	16,750	16,650	17,400	18,850
1,100	13,900	14,650	14,550	15,150	16,400	1,100	16,250	17,150	17,050	17,850	19,450
1,200	14,150	15,000	14,900	15,500	16,850	1,200	16,600	17,600	17,500	18,300	20,000
1,300	14,450	15,300	15,250	15,900	17,350	1,300	16,950	18,000	17,900	18,800	20,600
1,400	14,700	15,650	15,550	16,250	17,800	1,400	17,300	18,400	18,300	19,250	21,150
1,500	15,000	15,950	15,900	16,600	18,250	1,500	17,650	18,800	18,700	19,650	21,750
1,600	15,250	16,250	16,200	16,950	18,700	1,600	17,950	19,200	19,100	20,100	22,300
1,700	15,500	16,600	16,500	17,300	19,150	1,700	18,300	19,600	19,450	20,550	22,900
1,800	15,750	16,900	16,850	17,650	19,600	1,800	18,650	20,000	19,850	21,000	23,450
1,900	16,050	17,250	17,150	18,000	20,050	1,900	18,950	20,400	20,250	21,450	24,000
2,000	16,300	17,550	17,500	18,400	20,500	2,000	19,300	20,800	20,650	21,900	24,600
2,100	16,550	17,850	17,800	18,750	20,950	2,100	19,600	21,200	21,050	22,350	25,150
2,200	16,850	18,200	18,150	19,100	21,450	2,200	19,950	21,600	21,450	22,800	25,750
2,300	17,100	18,550	18,450	19,500	21,900	2,300	20,300	22,000	21,850	23,250	26,300
2,400	17,400	18,850	18,800	19,850	22,350	2,400	20,650	22,450	22,250	23,700	26,900
2,500	17,650	19,200	19,150	20,250	22,850	2,500	21,000	22,850	22,650	24,200	27,500
2,600	17,950	19,550	19,500	20,600	23,350	2,600	21,350	23,300	23,100	24,650	28,100
2,700	18,250	19,900	19,800	21,000	23,850	2,700	21,700	23,700	23,500	25,150	28,750
2,800	18,500	20,250	20,150	21,400	24,350	2,800	22,050	24,150	23,950	25,650	29,350
2,900	18,800	20,600	20,550	21,800	24,850	2,900	22,400	24,600	24,350	26,150	30,000
3,000	19,150	21,000	20,900	22,200	25,350	3,000	22,800	25,050	24,800	26,700	30,650

Log homes
Base cost per SFFA

SFFA	1 Story		1½ Story		2 Story	
	6" logs	8" logs	6" logs	8" logs	6" logs	8" logs
600	$104.85	$104.05	—	—	—	—
800	94.80	94.00	—	—	—	—
1,000	86.90	86.25	$95.95	$93.55	$105.05	$100.85
1,200	80.75	80.10	83.65	85.25	86.55	90.45
1,400	75.75	75.10	79.15	80.55	82.55	86.00
1,600	71.45	70.90	75.55	77.05	79.65	83.20
1,800	69.40	68.95	72.90	74.40	76.40	79.85
2,000	67.85	67.45	70.60	71.90	73.40	76.40
2,200	65.53	65.18	68.40	69.75	71.20	74.35
2,400	63.20	62.90	66.15	67.50	69.10	72.08
2,600	61.43	60.95	64.20	65.40	67.00	69.80
2,800	59.65	59.00	62.10	63.20	64.58	67.43
3,000	58.68	58.08	60.40	61.55	62.15	65.05
3,200	57.70	57.15	59.50	60.70	61.33	64.20
3,400	—	—	—	—	60.50	63.35
3,800	—	—	—	—	58.90	61.40

Base price schedules include normal construction features, such as a basement, post and beam frame, log exterior walls, floors, asphalt shingled roof, drywall interior finish, forced warm air central heating, lighting, and plumbing (five fixtures).

Plumbing (±)

Per fixture less than standard	Deduct	$1,235
Per fixture greater than standard	Add	$1,235

Quality

Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

Residential Section
Residential Schedules

No heat (-)

SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	$ 1,850	$ 2,050	$ 2,250	$ 2,250	$ 2,600
400	2,250	2,700	3,100	3,100	4,100
600	2,700	3,350	4,200	4,200	5,550
800	3,150	4,300	5,300	5,300	6,800
1,000	3,550	4,950	6,150	6,150	8,000
1,200	4,300	5,900	7,000	7,000	9,200
1,400	4,700	6,550	7,850	7,850	10,400
1,600	5,450	7,250	8,700	8,700	11,600
1,800	5,850	7,900	9,500	9,500	12,800
2,000	6,300	8,550	10,350	10,350	14,000
2,200	6,750	9,200	11,200	11,200	15,200
2,400	7,150	9,850	12,050	12,050	16,400
2,600	7,600	10,500	12,900	12,900	17,600
2,800	8,050	11,150	13,700	13,700	18,800
3,000	8,450	11,850	14,550	14,550	20,000

Central air conditioning (+)

SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	$ 1,900	$ 1,900	$ 1,900	$ 1,900	$ 1,900
400	1,900	1,900	1,900	1,900	2,050
600	1,900	2,050	2,050	2,050	2,450
800	1,900	2,200	2,200	2,450	3,000
1,000	2,050	2,450	2,450	2,600	3,900
1,200	2,050	2,600	2,600	3,000	4,850
1,400	2,200	2,750	2,750	3,900	5,200
1,600	2,450	3,900	3,900	3,900	5,550
1,800	2,450	3,900	3,900	4,850	6,650
2,000	2,600	4,850	4,850	5,000	7,750
2,200	3,000	5,200	5,200	5,350	8,000
2,400	3,000	5,200	5,200	5,550	8,300
2,600	3,000	5,350	5,350	5,950	10,200
2,800	3,900	5,550	5,550	6,650	10,600
3,000	3,900	5,550	5,550	7,750	11,700

Note: When using Schedule Combining with houses that have central air conditioning, subtract an additional $1,500.

Fireplace (+)

Quality	A	B	C	D
Fireplace & stack	$6,355	$4,275	$2,890	$1,965
2nd Fireplace on same stack	5,085	3,420	2,310	1,570

Note: 100% masonry fireplaces are B quality or better.

Finished basement (+)
Per SF of finished floor area

Quality	A	B	C	D
Recreation room	$ 6.55	$ 5.35	$ 4.35	$ 3.60
Living quarters	17.25	14.05	11.50	9.45

Partial masonry trim (+)
Per SF of surface area

Quality	A	B	C	D
Brick	$14.85	$ 12.85	$ 10.85	$ 8.80
Stone	31.10	27.00	22.90	18.65
Artificial stone	17.05	13.65	10.30	6.80

Paving (+)

Crushed Stone	$0.50/SF
Concrete	2.65/SF
Asphalt	1.75/SF

Foundation (-)

SFGA	Crawl	Slab
100	700	1,350
200	1,400	2,700
300	2,100	4,100
400	2,800	5,450
500	3,550	6,800
600	4,250	8,150
700	4,950	9,500
800	5,650	10,900
900	6,350	12,250
1,000	7,050	13,600
1,100	7,750	14,950
1,200	8,450	16,300
1,300	9,150	17,700
1,400	9,850	19,050
1,500	10,600	20,400
Over	7.05	13.60

Ordinarily there is no basement deduction for split-level construction. However, make a deduction of $12.60 per square foot of unfinished floor area for split-level construction in which the lower level is not finished.

Stoop, decks, patios (+)

Stoop - masonry	$15.90/SF
Deck - wood	14.45/SF
Patio - concrete	4.60/SF
Patio - brick	12.60/SF

Garages (+)

SFGA	Frame	Masonry
140	2,150	2,650
160	2,500	3,050
180	2,800	3,400
200	3,100	3,800
220	3,400	4,150
240	3,700	4,550
260	4,050	4,950
280	4,350	5,300
300	4,650	5,700
320	4,950	6,050
340	5,250	6,450
360	5,600	6,800
380	5,900	7,200
400	6,200	7,600
420	6,500	7,950
440	6,800	8,350
460	7,150	8,700
480	7,450	9,100
500	7,750	9,500
520	8,050	9,850
540	8,350	10,250
560	8,700	10,600
580	9,000	11,000
Over	15.50/SF	18.95/SF

Residential Section
Residential Schedules

Attic (+)

SFGA	Unfinished	½ Finished	Finished
400	$ 5,400	$ 8,400	$ 11,400
600	5,800	9,350	12,900
800	6,200	10,350	14,450
1,000	6,550	11,300	16,000
1,200	6,950	12,250	17,500
1,400	7,350	13,200	19,050
1,600	7,700	14,150	20,550
1,800	8,100	15,100	22,100
2,000	8,500	16,100	23,650
2,200	8,900	17,050	25,150
2,400	9,250	18,000	26,700
2,600	9,650	18,950	28,200
2,800	10,050	19,900	29,750
3,000	10,400	20,850	31,300

Residential pools in ground (+)

Price includes excavation, filtering system, pump, chlorinator, ladder, and diving board.

SFSA	Concrete	Vinyl liner
300	$ 18,700	$ 15,400
450	23,100	17,100
525	24,600	18,700
650	27,400	20,300
800	31,100	22,300
1,000	34,100	26,000

Price permanent type above-ground pools at 50% of vinyl liner price.

Pool additions (+)

Pool heaters

50 MBTU	$ 1,105
75 MBTU	1,290
100 MBTU	1,510

Note: Prices in this schedule represent pool costs. The extent to which a pool may enhance an individual property's market value is determined by the area or subdivision in which it is located. In certain areas, the presence of a swimming pool may even diminish market value.

Porches (+)

SFGA	OFP	EFP	OMP	EMP
12	$ 850	$ 1,300	$ 950	$ 1,650
16	950	1,400	1,000	1,800
20	1,000	1,500	1,100	1,900
30	1,150	1,800	1,300	2,200
40	1,300	2,050	1,550	2,500
60	1,600	2,600	1,950	3,150
80	1,900	3,150	2,400	3,750
100	2,200	3,700	2,800	4,400
125	2,550	4,350	3,350	5,150
150	2,950	5,050	3,900	5,900
175	3,300	5,750	4,400	6,700
200	3,700	6,400	4,950	7,450
250	4,800	7,750	6,200	9,200
300	5,550	9,150	7,300	10,750
350	6,300	10,500	8,350	12,300
400	7,050	11,850	9,400	13,850
450	7,800	13,200	10,500	15,400
Over	17.35	29.35	23.35	34.20

Mobile home schedule

Base cost includes average construction features, permanent inexpensive crawl space foundation, steps, plumbing (five fixtures), lighting, and central heating. Furniture is not included.

Width	40'	45'	50'	55'	60'	65'	70'	75'	80'	Age	REL	Age	REL	Age	REL
10'	$17,300	$19,050	$20,800	$22,550	$24,150	$25,800	$27,450	$29,200	$30,850	1	87	8	55	15	41
12'	19,050	20,900	22,750	24,600	26,350	28,150	29,850	31,750	33,550	2	80	9	52	16	40
14'	20,600	22,650	24,600	26,500	28,400	30,250	32,050	34,050	35,950	3	74	10	50	17	39
20'	36,450	40,050	42,500	45,400	48,200	50,950	53,600	56,600	59,400	4	69	11	48	18	38
24'	39,450	42,600	45,600	48,450	51,200	53,900	56,550	59,600	62,450	5	65	12	46	19	37
28'	42,500	45,100	48,650	51,450	54,200	56,900	59,500	62,650	65,500	6	61	13	44	20	36
										7	58	14	43	Over 20	35

Residential Section
How to Complete a Residential PRC-2

Step 1
Observe the type of construction (*i.e.,* frame or masonry) and the story height of the dwelling.

Step 2
Select the proper base price from the schedule for the indicated square foot ground area (SFGA).

Step 3
Make the necessary adjustments (additions or subtractions) for variations from the base cost schedules (*i.e.,* wood-frame and masonry construction).

Step 4
Select the appropriate quality grade factor for the dwelling and multiply the total (from Step 3) by this factor.

Step 5
Add other feature items, such as finished basement, partial masonry walls, and fireplaces to the total (from Step 4) to arrive at the manual's RCN.

Step 6
Chain multiply appropriate factors to arrive at a single factor. Multiply the manual's RCN (from Step 5) by this factor to compute a true RCN.

Step 7
Determine the appropriate REL factor by the appropriate CDU rating for the improvement. Multiply the true RCN (from Step 6) by the REL factor to determine the full value of the structure.

Step 8
Repeat Steps 4, 6, and 7 to determine the full value of any items listed under the "Summary of Other Buildings."

Step 9
Add the full value of other buildings (from Step 8) to the full value of the dwelling (from Step 7) which results in a "Total full value for all buildings."

Residential Section
Sample Appraisal — Two-story

Construction specifications

The property is a two-story brick dwelling with a full basement, attached garage, and three open-frame porches. There are six rooms on the first and second floors, including three bedrooms, kitchen, living room, and dining room. The dwelling has one full bath, two half baths, 400 SF of recreation room in the basement, and one wood-burning fireplace. The interior is finished with lath and plaster walls, hardwood trim and flooring, with some carpet and tile on the first floor. It is heated with a central warm air system and is equipped with central air conditioning. It is 26 years old, has a grade factor of C, and a CDU of good.

Procedure

1 Record construction specifications in the appropriate section of the PRC-2.

2 Sketch a diagram of the dwelling and for all sections identify the story height, construction type, and foundation; label the main structure and all appendages with proper dimensions and SFGA.

3 Establish the quality grade according to the explanations and procedures described in the Property Record Card System section of the IRPAM.

4 Establish the CDU rating according to the explanations and procedures described in the Property Record Card System section of the IRPAM.

5 Price the dwelling in the pricing ladder under "Dwelling Computations" on the PRC by completing the following items:

- the number of stories and construction (masonry or frame) of the dwelling.
- the SFGA of the dwelling and corresponding base price.
- Make the necessary additions or deductions.

  Basement: Base price includes basement; no adjustment is necessary.
  Heating: Base price includes central warm air system; add for air conditioning.
  Plumbing: Base price includes a standard complement of plumbing consisting of one full bathroom with three fixtures, a kitchen sink and automatic water heater; add for two extra half baths for a total of four extra fixtures.
  Attic: Base price does not include an attic; no adjustment is necessary.
  Porches: Base price does not include any porches. List and price porches separately in the computation ladder.
  Attached garage: Write the price of the garage in the computation ladder. Detached garages are listed separately in the "Summary of Other Buildings" section of the PRC-2.

  — Compute the total price after adjustments made thus far.
  — Apply the grade factor that was determined during inspection.
  — Compute prices for other features that are each graded separately from the main structure.
  Part masonry walls: not applicable for this property.
  Fireplace: write the price of one (Grade C) fireplace and stack.
  Finished basement: write the price of (Grade C) recreation room.
  — Add "other features" to the total computed above to obtain the manual's replacement cost new. Apply cost, design, neighborhood, and appraiser factors to arrive at the true replacement cost new value.

6 Establish the depreciation allowance from the REL depreciation system. Insert the REL factor in the pricing ladder and compute the full value.

7 Add for features in the "Summary of Other Buildings" section. The 450 square foot driveway is added here.

A sample PRC is on the following page.

Building Record — Residential — Rural (Property — Type 1)

Occupancy

1 Vacant Lot	2 Dwelling	3 Other	4 Mobile Home	5 A Frame	6 Summer Home	7 Apt.
	②					

Living Accommodations

Total rooms	Bedrooms	Family room
6	3	—

Foundation

8 "Msy. Wall — Pier

Basement

1 Full	3 Crawl	4 Slab
①		

Area without bsmt. — SF

Heating

1 None	2 Central	3 Air condition	4 Other
	②	③	

Warm air	✓
Hot water/Steam	
Floor furnace	
Unit heaters	
Other	

Plumbing

Standard (5)	1
Bathroom (3)	
Half bath (2)	2
Sink/Lavatory water closet	

Attic

1 None	2 Unfinished	3 Part	4 Full
①			

% finished

Exterior walls

Wood/stucco/aluminum/vinyl siding	
Concrete block	
Brick/stone	✓
Other	

Roof

Shingle - asphalt/~~asbestos/wood~~	✓
Slate/tile	
Composition	
Other	

Floors

	B	1	2	3
Concrete	✓			
Wood		✓	✓	
Tile		✓		
Carpet		✓		

Interior Finish

	B	1	2	3
Plaster/dry wall				
Fiberboard		✓	✓	
Paneling				

Features	SF	Quality	Type
Pt. Msy. Trim			Brk.[1] Stone[2] Art[3]
Finished Basement	400	C	Living / Recreation
Fireplaces	# 1	C	Stacks # 1
Integral garage			On grade[1] Below[2]
Attached garage	300		Frm.[1] (Msy.[2]) Carport[3]

Remodeled: NH

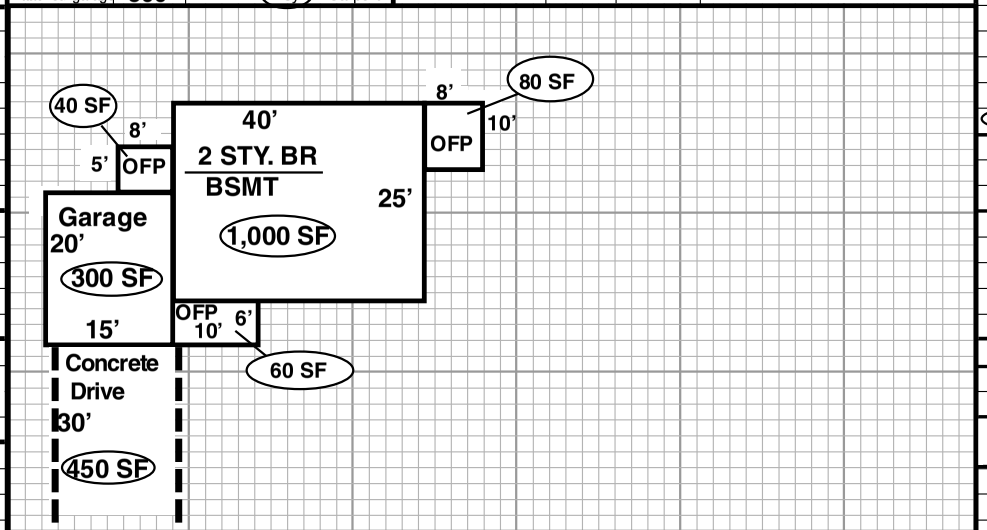
Sold Date: Mo. Day Yr.

Amount $

Memo

Porches

Condo. Comm.	Porch	40	SF	(OFP[1])	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]
Prorated %	Porch	60	SF	(OFP[1])	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]
With:	Porch	80	SF	(OFP[1])	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]
	Wd. deck		SF	Wood deck[6]				



Age 26 — Adj. Age 15

CDU Good

Grade C

Dwelling Computations

2 Sty. BR Constr. 1,000 SF

Sty. Constr. SF

	1,000 SF	$107,200
Basement		
Heating/Central air	A/C	+ 2,600
Sched. comb.		
Plumbing	⊕ 4 -	+ 4,940
Attic		
	OFP 40SF	+ 1,300
Porches	OFP 60SF	+ 1,600
	OFP 80SF	+ 1,900
Attch/Integral garage ○	300SF	+ 5,700
Total		125,240
Grade	C=	X 1.00
Total		125,240
Other features		
Pt. msy. walls		
Fireplace	Grade C	+ 2,890
Finished basement	400SF	+ 1,740
	(@4.35)	
Total		129,870
C x D	1.00 x 1.00	
NH x AP	1.00 x 1.00	X 1.00
Replacement cost new		129,870
Eff. age 15	REL	
Depr. 13%	0.87	0.87
S ◎ M I	Full Value	$112,987

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. cost new	REL	Full Value
Garage (detached)		Frm[1] Msy.[2] Carport[3]									
Driveway		**Concrete**	**450 SF**	**2.65**	**C**	**26**	**Good**	**1.00**	**1,193**	**0.87**	**1,038**

Listed by: JLN

Date: 1/2/02

Total full value other buildings: 1,038

Total full value all buildings: $114,025

PRC-2 (R-1/00) (opposite PRC-1)

Residential Section
Sample Appraisal — Multi-level

This nine-year-old multi-level home has a one-story section constructed of brick and a two-story section constructed of brick and frame. The entire dwelling rests on a slab foundation and has central warm air heating and air conditioning, and two full baths. Also, there is an open masonry porch and a partial integral garage. The dwelling has a quality grade of C plus 10 and a CDU of good.

This type of dwelling has three levels of floor area. The garage, foyer, family room, and one full bath are slightly on grade. The second level, which is slightly above grade, houses the living room, kitchen, and dining area.

The upper level contains three bedrooms and one full bath. Price this type of dwelling as multi-level construction (*i.e.,* one part as one-story brick and one part as two-story brick and frame). Price the brick and frame portion as an average of the frame and masonry schedules. Price the one-story from the masonry schedule. The sum of these two separate base prices is the base price of this dwelling. Deductions for schedule combining, area without a full basement, and the integral garage are required. Additions to the base price for air conditioning, extra plumbing fixtures, an open masonry porch, and attached garage are necessary before the quality grade factor is applied.

A sample appraisal is on the following page.

Residential Section

Sample Appraisal — Multi-level

Building Record — Residential — Rural (Property — Type 1)

Occupancy

1 Vacant Lot	2 Dwelling	3 Other	4 Mobile Home	5 A Frame	6 Summer Home	7 Apt.
	②					

Living Accommodations

Total rooms	Bedrooms	Family room
7	3	1

Foundation

8 "Msy. Wall — Pier

Basement

1 Full	3 Crawl	④ Slab

Area without bsmt. 2,000 SF

Heating

1 None	② Central	③ Air condition	4 Other

Warm air	✓
Hot water/Steam	
Floor furnace	
Unit heaters	
Other	

Plumbing

Standard (5)	1
Bathroom (3)	1
Half bath (2)	
Sink/Lavatory water closet	

Attic

① None	2 Unfinished	3 Part	4 Full

% finished

Exterior walls

Wood/~~stucco/aluminum/vinyl siding~~	✓
Concrete block	
Brick/stone	✓
Other	

Roof

Shingle - asphalt/~~asbestos/wood~~	✓
Slate/tile	
Composition	
Other	

Floors

	B	1	2	3
Concrete		✓		
Wood				
Tile		✓		
Carpet		✓	✓	

Interior Finish

	B	1	2	3
Plaster/dry wall		✓	✓	
Fiberboard				
Paneling				

Features	SF	Quality	Type
Pt. Msy. Trim			Brk.[1] Stone[2] Art[3]
Finished Basement			Living
			Recreation
Fireplaces	#		Stacks #
Integral garage	300	On grade[1]	Below[2]
Attached garage	60	Frm.[1]	(Msy.[2]) Carport[3]

Remodeled: NH — Sold Date: Mo. Day Yr. — Amount $

2 STY.		Memo	Base price
BR $92,700		2 STY. BF.	$88,050
FR 83,400		1 STY. BR.	77,100
$176,100 ÷ 2 =			$88,050 $165,150

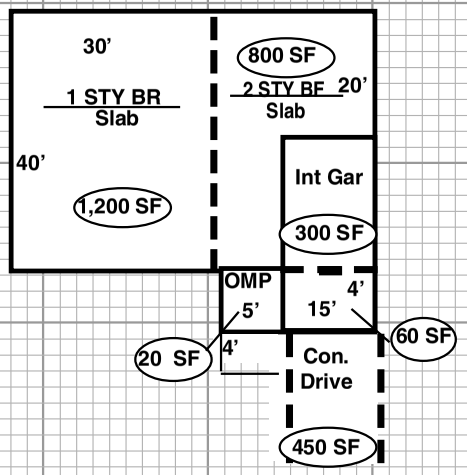
Porches

Condo. Comm.	Porch	20	SF	OFP[1]	EFP[2]	(OMP[3])	EMP[4]	2-Sty.[5]
Prorated %	Porch		SF	OFP[1]	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]
With:	Porch		SF	OFP[1]	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]
	Wd. deck		SF	Wood deck[6]				

Sch. Comb. A/C
2 STY BF 800 $2,450 2 STY.
$16,400 BR $2,050 1 STY.
$13,950 FR $4,500
$30,350 Total - 1,500 Sch. Comb.
÷ 2 $3,000
$15,175

Attached Garage*
2,650 = $ 18.93 per SF
140 SF X 60 SF
$1,135.80

*** The minimum SF for a masonry garage on the schedule is 140 SF @ $2,650. Divide $2,650 by 140 SF to find a per SF price for small garages.**



Age 9	Adj. Age 2
CDU Good	
Grade C +10	

Dwelling Computations

1	Sty.	BR	Constr.	1,200 SF
2	Sty.	BF	Constr.	800 SF

	2,000 SF	$165,150
Basement	(Slab)	- 27,200
Heating/Central air	A/C	+ 3,000
Sched. comb.		- 15,175
Plumbing	⊖ 3 -	+ 3,705
Attic		
Porches	OMP 20SF	+ 1,100
	Int gar.300 SF @ $12.60	- 3,780
(Attch) Integral garage	⊕ -	+ 1,136
Total		127,936
Grade	C + 10=	X 1.10
Total		140,730
Other features		
Pt. msy. walls		
Fireplace		
Finished basement		
Total		140,730
C x D	1.00 x 1.00	
NH x AP	1.00 x 1.00	X 1.00
Replacement cost new		140,730
Eff. age 2	REL	
Depr. 1%	0.99	0.99
S (C) M I	Full Value	$139,323

Summary of Other Buildings

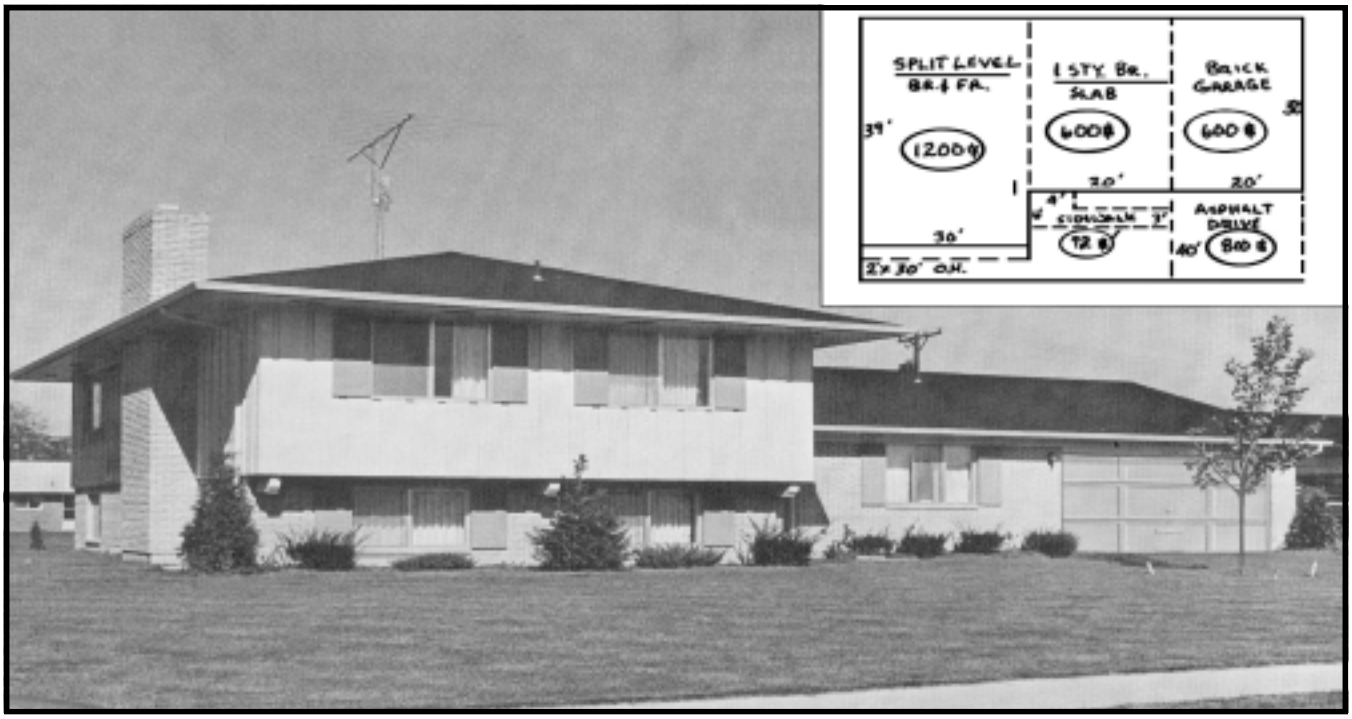
Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. cost new	REL	Full Value
Garage (detached)		Frm[1] Msy.[2] Carport[3]									
Driveway		**Concrete**	**450 SF**	**2.65**	**C**	**9**	**Good**	**1.00**	**1,193**	**0.99**	**1,181**
Walk		**Concrete**	**20 SF**	**2.65**	**C**	**9**	**Good**	**1.00**	**53**	**0.99**	**52**

Listed by: JLN
Date: 1/2/02

Total full value other buildings 1,233
Total full value all buildings $140,556

PRC-2 (R-1/00) (opposite PRC-1)

Residential Section
Sample Appraisal — Tri-level



The construction specifications of this eleven-year-old tri-level dwelling are as follows: the split-level portion is constructed with one level brick and one level frame with a two-foot overhang. The one-story portion is on a slab with brick exterior. The dwelling has two and one-half baths, central warm air heating and air conditioning, a fireplace (Grade B), and an attached brick garage. The quality grade is C and CDU is average.

This type of dwelling has three levels of floor area. The living room, kitchen, and dining areas are at ground level. The upper level contains three bedrooms and two full bathrooms. Beneath this upper level and partially below ground level are the family room, half-bath, and utility room. This type of dwelling is priced as multi-level construction (*i.e.,* one part as split-level that is brick and frame, and one part as one-story brick). Price the brick and frame portion as an average between the frame and masonry schedules. Use the average of the square foot areas of the upper and lower levels as the SFGA in pricing this portion. Price the one-story brick portion separately from the appropriate base price schedule. The sum of the base price of the two portions is the base price of the dwelling. Make a deduction for the area without a basement. Find the deduction for schedule combining from the appropriate schedule and write it in the computation ladder. Treat the garage as a typical attached garage.

A sample appraisal is on the following page.

Building Record — Residential — Rural (Property — Type 1)

Occupancy: 1 Vacant Lot | (2) Dwelling | 3 Other | 4 Mobile Home | 5 A Frame | 6 Summer Home | 7 Apt.

Living Accommodations

Total rooms	Bedrooms	Family room
8	3	1

Foundation: 8 "Msy. Wall — Pier

Basement: 1 Full | 3 Crawl | (4) Slab

Area without bsmt. 600 SF

Heating

1 None	(2) Central	(3) Air condition	4 Other

Warm air	✓
Hot water/Steam	
Floor furnace	
Unit heaters	
Other	

Plumbing

Standard (5)	1
Bathroom (3)	1
Half bath (2)	1
Sink/Lavatory water closet	

Attic: (1) None | 2 Unfinished | 3 Part | 4 Full — % finished

Exterior walls

Wood/~~stucco/aluminum/vinyl siding~~	✓
Concrete block	
Brick/stone	✓
Other	

Roof

Shingle - asphalt/~~asbestos/wood~~	✓
Slate/tile	
Composition	
Other	

Floors

	B	1	2	3	
Concrete	✓				
Wood			✓		
Tile	✓	✓			
Carpet		✓	✓		

Interior Finish

	B	1	2	3
Plaster/dry wall	✓	✓	✓	
Fiberboard				
Paneling				

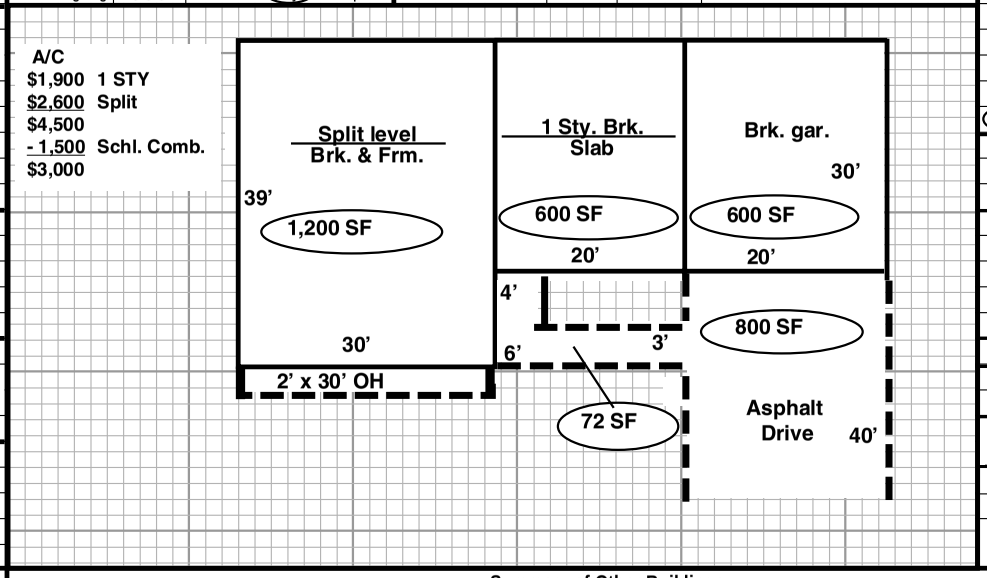
Features	SF	Quality	Type
Pt. Msy. Trim			Brk.[1] Stone[2] Art.[3]
Finished Basement			Living
			Recreation
Fireplaces	# 1	B	Stacks # 1
Integral garage		On grade[1]	Below[2]
Attached garage	600	Frm.[1] (Msy.[2])	Carport[3]

Remodeled	Sold Date Mo. Day Yr.
NH	Amount $

	Memo	
Split	Base price	
FR $83,050	Split	$86,150
BR 89,250	1 STY. BR.	50,800
$172,300 ÷ 2 =	$86,150	$136,950

Porches

Condo. Comm.	Porch	SF	OFP[1]	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]	
Prorated %	Porch	SF	OFP[1]	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]	
With:	Porch	SF	OFP[1]	EFP[2]	OMP[3]	EMP[4]	2-Sty.[5]	
	Wd. deck	SF	Wood deck[6]					



Age 11	Adj. Age 11
CDU Average	
Grade C	

Dwelling Computations

Split Sty. BF Constr. 1,200 SF	
1 Sty. BR Constr. 600 SF	
1,800 SF	$136,950
Basement (Slab)	- 8,150
Heating/Central air A/C	+ 3,000
Sched. comb.	- 14,300
Plumbing ⊕ 5 -	+ 6,175
Attic	
Porches	
$18.95 X 600 SF	
(Attch)/Integral garage ⊕ -	+ 11,370
Total	135,045
Grade C=	X 1.00
Total	135.045
Other features	
Pt. msy. walls	
Fireplace Grade B=	+ 4,275
Finished basement	
Total	139,320
C x D 1.00 x 1.00	
NH x AP 1.00 x 1.00	X 1.00
Replacement cost new	139,320
Eff. age 11 REL	
Depr. 10% 0.90	0.90
S © M I Full Value	$125,388

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. cost new	REL	Full Value
Garage (detached)		Frm[1] Msy.[2] Carport[3]									
Driveway		**Asphalt**	**800 SF**	**1.75**	**C**	**11**	**Avg.**	**1.00**	**1,400**	**0.90**	**1,260**
Walk		**Concrete**	**72 SF**	**2.65**	**C**	**11**	**Avg.**	**1.00**	**191**	**0.90**	**172**

Listed by: JLN
Date: 1/2/02

Total full value other buildings 1,432
Total full value all buildings $126,820

PRC-2 (R-1/00) (opposite PRC-1)

Residential Section
Condominiums

Valuation of condominium property

In the appraisal of condominium real estate, you must understand the term "condominium." Condominium is a system of ownership in one or more multi-unit buildings. The unit owner owns an air lot unit and a share of the undivided interest in the common elements of the land and the building.

An "air lot" is defined as the space enclosed by the three dimensional measurement of the unit. The measurement is from the innerfaces of the walls, ceiling, and floor. Common elements of the buildings consist of the remaining area, including exterior walls, interior walls, halls, stairways, *etc.* All the designated land (as recorded) upon which the buildings are situated, are the common elements of land.

The amount of ownership of common elements is declared by a percentage figure applicable to each individual unit. This schedule of ownership is found in a declaration that must be recorded by the developer in accordance with Illinois' Condominium Property Act.

The information supplied in the declaration (and plat) is important in the assessment process. The assessor must become familiar with the declaration in order to extract the needed information. To aid in the understanding of the condominium concept, part of the Condominium Property Act follows.

Condominium Property Act

(765 ILCS 605/3)

Sec. 3. Submission of property. Whenever the owner or owners in fee simple, or the sole lessee or all lessees of a lease described in item (x) of Section 2, of a parcel intend to submit such property to the provisions of this Act, they shall do so by recording a declaration, duly executed and acknowledged, expressly stating such intent and setting forth the particulars enumerated in Section 4. If the condominium is a leasehold condominium, then every lessor of the lease creating a leasehold interest as described in item (x) of Section 2 shall also execute the declaration and such lease shall be recorded prior to the recording of the declaration.
(Source: P.A. 89-89, eff. 6-30-95.)

(765 ILCS 605/4)

Sec. 4. Declaration - Contents. The declaration shall set forth the following particulars:

(a) The legal description of the parcel.

(b) The legal description of each unit, which may consist of the identifying number or symbol of such unit as shown on the plat.

(c) The name of the condominium, which name shall include the word "Condominium" or be followed by the words "a Condominium".

(d) The name of the city and county or counties in which the condominium is located.

(e) The percentage of ownership interest in the common elements allocated to each unit. Such percentages shall be computed by taking as a basis the value of each unit in relation to the value of the property as a whole, and having once been determined and set forth as herein provided, such percentages shall remain constant unless otherwise provided in this Act or thereafter changed by agreement of all unit owners.

(f) If applicable, all matters required by this Act in connection with an add-on condominium.

(g) A description of both the common and limited common elements, if any, indicating the manner of their assignment to a unit or units.

(h) If applicable, all matters required by this Act in connection with a conversion condominium.

(h-5) If the condominium is a leasehold condominium, then:

(1) The date of recording and recording document number for the lease creating a leasehold interest as described in item (x) of Section 2;

(2) The date on which the lease is scheduled to expire;

(3) The legal description of the property subject to the lease;

(4) Any right of the unit owners to redeem the reversion and the manner whereby those rights may be exercised, or a statement that the unit owners do not have such rights;

(5) Any right of the unit owners to remove any improvements within a reasonable time after the expiration or termination of the lease, or a statement that the unit owners do not have such rights;

(6) Any rights of the unit owners to renew the lease and the conditions of any renewal, or a statement that the unit owners do not have such rights; and

(7) A requirement that any sale of the property pursuant to Section 15 of this Act, or any removal of the property pursuant to Section 16 of this Act, must be approved by the lessor under the lease.

(i) Such other lawful provisions not inconsistent with the provisions of this Act as the owner or owners may deem desirable in order to promote and preserve the cooperative aspect of ownership of the property and to facilitate the proper administration thereof.
(Source: P.A. 89-89, eff. 6-30-95.)

(765 ILCS 605/5)

Sec. 5. Plat to be recorded. Simultaneously with the recording of the declaration there shall be recorded a plat as defined in Section 2, which plat shall be made by a Registered Illinois Land Surveyor and shall set forth (1) all angular and linear data along the exterior boundaries of the parcel; (2) the linear measurements and location, with reference to said exterior boundaries, of any buildings improvements and structures located on the parcel; and (3) the elevations at, above, or below official datum of the finished or unfinished interior surfaces of the floors and ceilings and the linear measurements of the finished or unfinished interior surfaces of the perimeter walls, and lateral extensions thereof or other monumental perimeter boundaries, where there are no wall surfaces, that part of every unit which is in any building on the parcel, and the locations of such wall surfaces or unit boundaries with respect to the exterior boundaries of the parcel projected vertically upward; (4) the elevations at, above, or below official datum and the linear measurements of the perimeter boundaries, of that part of the property which constitute a unit or a part thereof outside any building on the parcel and the location of the boundaries with respect to the exterior vertical boundaries of the parcel, projected vertically upward. Every such unit shall be identified on the plat by a distinguishing number or other symbol; (5) if the Registered

Illinois Land Surveyor does not certify that such plat accurately depicts the matters set forth in subsection (3) and (4) above, such a certification for any particular unit or units as built shall be recorded prior to the first conveyance of such particular unit or units as part of an amended plat, thereby complying with the requirements of subsections (3) and (4) of this Section; (6) when adding additional property to an add-on condominium, the developer, or in the event of any other alteration in the boundaries or location of a unit, any building on the parcel or the parcel authorized in this Act, the president of the board of managers or other officer authorized and designated by the condominium instruments shall record an amended plat of survey conforming to the requirements of this Section, or shall provide a certificate of a plat previously recorded that is in accordance with the certification requirements of this subsection. Such amended plat or certificate shall be certified by a Registered Illinois Land Surveyor as to accuracy in depicting changes in boundary or location in the portions of the property set forth in subsections (1), (2), (3) and (4) above, and that such changes have been completed.
(Source: P.A. 82-246.)

(765 ILCS 605/6)

Sec. 6. Recording - Effect. Upon compliance with the provisions of Sections 3, 4, and 5 and upon recording of the declaration and plat the property shall become subject to the provisions of this Act, and all units shall thereupon be capable of ownership in fee simple or any lesser estate, and may thereafter be conveyed, leased, mortgaged or otherwise dealt with in the same manner as other real property, but subject, however, to the limitations imposed by this Act. Each unit owner shall be entitled to the percentage of ownership in the common elements appertaining to such unit as computed and set forth in the declaration pursuant to subsection (e) of Section 4 hereof, and ownership of such unit and of the owner's corresponding percentage of ownership in the common elements shall not be separated, except as provided in this Act, nor, except by the recording of an amended declaration and amended plat approved in writing by all unit owners, shall any unit, by deed, plat, judgment of a court or otherwise, be subdivided or in any other manner separated into tracts or parcels different from the whole unit as shown on the plat, except as provided in this Act. The condominium instruments may contain provisions in accordance with this Act providing for the reallocation and adjustment of the percentage of ownership in the common elements appertaining to a unit or units in circumstances relating to the following transactions: an add-on condominium; condemnation; damage or destruction of all or a portion of the property; and the subdivision or combination of units. Interests in the common elements shall be re-allocated, and the transaction shall be deemed effective at the time of the recording of an amended plat depicting same pursuant to Section 5 of this Act. Simultaneously with the recording of the amended plat, the developer in the case of an add-on condominium, or the President of the board of managers or other officer in other instances authorized in this Act shall execute and record an amendment to the declaration setting forth all pertinent aspects of the transaction including the reallocation or adjustment of the common interest. The amendment shall contain legal descriptions sufficient to indicate the location of any property involved in the transaction.
(Source: P.A. 84-1308.)

(765 ILCS 605/8)

Sec. 8. Partition of common elements prohibited. As long as the property is subject to the provisions of this Act the common elements shall, except as provided in Section 14 hereof, remain undivided, and no unit owner shall bring any action for partition or division of the common elements. Any covenant or agreement to the contrary shall be void.
(Source: Laws 1963, p. 1120.)

(765 ILCS 605/10)

Sec. 10. Separate taxation.

(a) Real property taxes, special assessments, and any other special taxes or charges of the State of Illinois or of any political subdivision thereof, or other lawful taxing or assessing body, which are authorized by law to be assessed against and levied upon real property shall be assessed against and levied upon each unit and the owner's corresponding percentage of ownership in the common elements as a tract, and not upon the property as a whole. For purposes of property taxes, real property owned and used for residential purposes by a condominium association, including a master association, but subject to the exclusive right by easement, covenant, deed or other interest of the owners of one or more condominium properties and used exclusively by the unit owners for recreational or other residential purposes shall be assessed at $1.00 per year. The balance of the value of the property shall be assessed to the condominium unit owners. In counties containing 1,000,000 or more inhabitants, any person desiring to establish or to reestablish an assessment of $1.00 under this Section shall make application therefor and be subject to the provisions of Section 10-35 of the Property Tax Code.

(b) Each condominium unit shall be only subject to the tax rate for those taxing districts in which such unit is actually, physically located. The county clerk shall not apply a rate which is an average of two or more different districts to any condominium unit.

(c) Upon authorization by a two-thirds vote of the members of the board of managers or by the affirmative vote of not less than a majority of the unit owners at a meeting duly called for such purpose, or upon such greater vote as may be required by the declaration or bylaws, the board of managers acting on behalf of all unit owners shall have the power to seek relief from or in connection with the assessment or levy of any such taxes, special assessments or charges, and to charge and collect all expenses incurred in connection therewith as common expenses.
(Source: P.A. 88-670, eff. 12-2-94.)

Residential Section
Appraising the Condominium

In estimating the value of condominium property, use the cost approach; sales comparison, or market, approach; and income approach to value. A summary of the application of these approaches follows.

Cost approach

Use the cost approach, to estimate the value of the subject tract of land (as recorded) through an acceptable appraisal method. Use the sales comparison, or market, approach when sufficient data are available.

First, allocate the land value of the property to each unit according to the declared ownership percentage.

Next, estimate the RCN of any condominium buildings. Because the percentage of ownership interest is computed by valuing each unit in relation to the value of the property as a whole, this cost estimate may also be allocated to each unit according to the declared ownership percentage.

Compute a depreciated value for each unit using this cost estimate. The CDU for individual units may vary within the same condominium, but an overall CDU is established for the entire building. The declared ownership percentage is also used to allocate the common elements to each owner.

The sum of the land value and the depreciated unit value and common element value, is the unit market value. These values for each unit may be listed on the Condominium Summary Card.

Sales comparison, or market, approach

When you apply the sales comparison, or market, approach, analyze sales data and perform a sales comparison approach in the normal manner for each unit, use sales of several condominium units that are similar to the type being appraised to make a comparison. Use an adjustment grid to make adjustments for appropriate aspects that influence value, such as land value, quality and quantity of common elements, location, construction type and quality, number of baths, with or without fireplaces, *etc.* If the units are nearly identical, you can simplify the process by performing a sales comparison approach to value the basic unit. Then, through market data, develop adjustments to account for differences from the norm for the subject complex. For example, develop specific dollar amounts for the addition of a fireplace or a half bath.

Express the value estimate that results from this sales comparison approach in dollars per square foot of the individual units that are being used as comparable sales. Because adjustments have already been made for all value influencing factors including land value and quality and quantity of common elements, apply this per square foot value to the total square foot size of each individual subject property unit to arrive at a final value estimate.

Income approach

The income approach is usually employed as a value indicator of an income producing property. Because most condominium properties are not exchanged in the market for investment purposes, the income approach has limited application.

Since unit ownership of condominium property is similar to single family residences, using the gross rent multiplier (GRM) is suggested. The necessary data should be readily available if there is a rental market. Sale prices of the units selling can be related to the gross rent of comparable units that are occupied by tenants.

Apply the GRM to the estimated gross rent for each subject property unit. Because the GRM relates to all amenities, including land and common elements, the value estimate is now complete.

Residential Section
Sample Appraisal — Condominium

The following description of an actual condominium is followed by a written, step-by-step procedure for processing the three approaches to value.

The subject condominium is on a site that is valued, by comparative data, at $48,000. The property is made up of the site, one structure containing eight units, and other site improvements consisting of walks and driveways. The actual costs of the other site improvements are $882 for walks and $1,768 for driveways.

The structure is a two-story brick building on a concrete slab with 7,280 SFGA. It consists of eight two bedroom units with an average unit size of 1,820 square feet.

Unit number	Declared percentage
1	10.75%
2	16.41%
3	16.58%
4	10.93%
5	10.76%
6	11.69%
7	11.85%
8	11.03%
Total	100.00%

Units 1, 2, 3, and 4 have 6' x 10' concrete patios; units 5, 6, 7, and 8 have 4' x 10' elevated wood decks. All eight units have two bedrooms, one bath, and a fireplace. Units 2 and 3 have an extra fireplace; and unit 3 has an extra half bath. The entire building has central air conditioning. The building's quality grade is C, and the CDU is average. It was constructed one year ago.

In all three approaches, the first step is to examine the recorded declaration. Assume that this has been done for this example. The findings are that

- the legal description is correct,
- there are no improvements except those described above, and
- the declared percentage of ownership in common elements is as shown above.

Cost approach procedure

Step 1
Read the recorded condominium declaration to come to a clear understanding of the real property rights owned by each unit owner. Attached to the declaration are exhibits that detail the percentage of ownership in common elements, the description of the condominium tract, and drawings showing precise dimensions of the condominium buildings and each unit.

Step 2
Value the total condominium tract, as if vacant, by an accepted land valuation method. The tract is owned in common. Therefore, allocate the value according to the ownership percentage as recorded in the declaration.

Step 3
Obtain the total RCN. Field list and compute the RCN of the building and common elements using all appropriate schedules (commercial, office, apartment, *etc.*), and using the proper PRC. Usually this will be PRC-4 for valuing apartment buildings. Apply quality grade and local cost factors to arrive at the replacement cost. List common elements (driveways, swimming pools, tennis courts, *etc.*) in the "Summary of Other Buildings" section of PRC-4. Apply the appropriate cost factor and calculate the depreciated value for these common elements and enter it in the "Full Value" column of the property record card.

Step 4
Complete a PRC-1 for each condominium unit by filling in the top portion of the card and by computing the land and unit value including all common elements.

To compute land value for each individual unit, multiply the total land value by the declared percentage for that unit. To compute the value of the condominium unit, including all common elements, multiply the total value of the complex improvements by the declared percentage for each individual unit. The common elements may be listed and computed separately if you prefer.

PRC examples follow.

Property Record — Commercial — Industrial

Construction Specifications

Foundation			
Sprd. Ftg.	✓	Pile	
Caisson		Other	

Wall Framing	B	1	2	3	A
Wood					
Steel O/FP					
Reinf. Concrete					
Load Bearing		✓	✓		
Frame Bay - Bay Area					

Floors					
Wood			✓		
Steel O/FP					
Reinf. Concrete		✓			
Frame	(Wood)	Steel	Conc.		

Exterior Walls					
Siding					
Masonry Blk. (Brk)		✓	✓		
Steel					
Glass					

Finish					
Unfinished					
Finished Open					
Finished Divd.		✓	✓		

Heat					
Cent. Wm. Air		✓	✓		
Ht. Wt/Steam					
Unit Heaters					
None					

Air Conditioning					
Central		✓	✓		
Unit					
None					

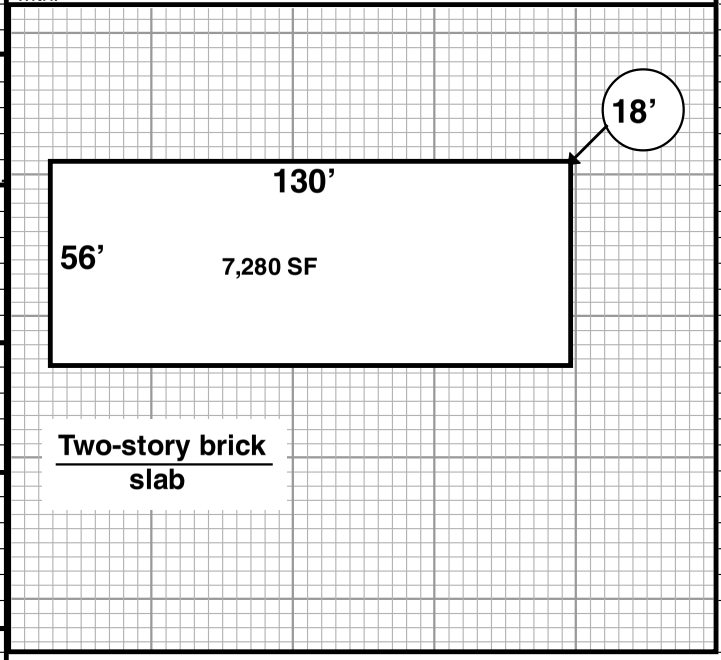
Roofing			
Composition		Shingle	✓
Slate		Metal	
Frame	(Wood)	Steel	Conc.

Plumbing Type			
1	42 fixtures	2	
3		4	
	Sprinkler		

Use								
Store		Office		Vacant				
Apt.	✓	WH		Abandoned				
Factory								

No. of Units **8**
Avg. Unit Size **1,820/SF**
No. Rooms Per Unit **2** **Brick** Sty.

Prorated @ _____%
with:



Data Bank	
SF Ground Area	7,280
Eff. Perim LF	372
CF of Bldg.	131,040
SF Wall Area	6,696
Wall Ratio	20

Description	Computation
Flr. Price x Ht. Adj.	WH
	Bsmt.
	1st Floor $ 54.95
	2nd Floor 49.20
	3rd Floor
	Sched.
	Base Price $ 104.15
Size _____ x Shape _____ x Weight _____	BPA
	Adj. Base Price
	Heat
	A/C
	Electrical Light
	Sprinkler
	SF Price $ 104.15
	SF 7,280.00
	Subtotal 758,212.00
2 Res. Fixt. @ 1,235 ea.	Plumbing 2,470.00
10 @ $2,890 ea.	Fireplace 28,900.00
	Partitions
	Front
	Canopy
	Dock
240 SF @ $4.60	Conc. Patio 1,104.00
160 SF @ $14.45	Wood Deck 2,312.00
	Total $ 792,998.00
S C M I Grade	
C&D 1.00 G 1.00 NH 1.00	A 1.00 = FAC 1.00
Eff. Age 1 / Eff. Age 1 / CDU Avg. / Age 1	Replacement Cost New $ 792,998.00
Depreciation = 0%	REL 1.00
	Full Value $ 792,998.00

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. Cost New	REL	Full Value
Driveways		Concrete	667 SF	$2.65	C	1	Avg.	1.00	$1,768.00	1.00	$ 1,768.00
Walks		Concrete	333 SF	$2.65	C	1	Avg.	1.00	882.00	1.00	882.00

Listed by: **JLN**
Date: **1/2/02**

Total full value other buildings $ 2,650.00
Total full value all buildings $ 795,648.00

PRC-4 (R-1/00) (opposite PRC-3)

Property Record — Residential — Rural

Ownership & Mailing Address

Woodlake Condominiums

Property Address

Township	Volume	Tax Code	Area	Sect.	Block	Parcel	Unit
			22	14	300	105	1002

Property Class	Land Use	Zoning	NH Code	Card No. ___ of ___	Condo. Comm.
					16.41%

Record of Ownership	Date	Deed Stamps	Sale Price

Street		Nghbhd.		Utilities		Topo.		Division
Private Rd.		Improved		Water		Level		
Cul-de-sac		Static		Sewer		High		
Alley		Decline		Gas		Low		
Traffic Lt.		Blighted		Electric		Rolling		
Traffic Hvy.						View		

Building Permit Record

Date	Number	Amount	Yr. Assessed	N/C	P/U Year	Purpose

Land Computations

Unit Type	No. Units	Depth	Unit Value	D. Fac.	I. Fac.	Full Value
#2	Land value is 16.41% of $48,000 = $7,877					
#2	Building value is 16.41% of $792,998 = $130,131					

Roll Backs

Year	Unit	Unit Value	Full Value	App. File	Year	Unit	Unit Value	Full Value	App. File

Summary of Assessed Values

	Orig. Asmt.: Year _____			Rev. by: Year _____			Rev. by: Year _____			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land	$7,877	33 1/3	$ 2,625									
Bldgs.	$130,131	33 1/3	$43,373									
Total	$138,008	33 1/3	$45,998									

	Rev. by: Year _____			Rev. by: Year _____			Rev. by: Year _____			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land												
Bldgs.												
Total												

	Rev. by: Year _____			Rev. by: Year _____			Rev. by: Year _____			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land												
Bldgs.												
Total												

PRC-1 (R-1/00) (opposite PRC-2)

IL-492-1155

Sales comparison, or market approach procedure

Step 1

Read the recorded condominium declaration to arrive at a clear understanding of the real property rights owned by each air lot owner. Attached to the declaration are exhibits which detail the percentage of ownership in common elements; the description of the condominium tract; and drawings showing precise dimensions of the condominium buildings and each unit.

Step 2

- List the declared percentage of ownership for each unit from the recorded declaration.
- Compute and list the net square foot area of each unit.

Step 3

Analyze sales data of condominium units similar to the subject property units; make appropriate adjustments using an adjustment grid. The comparison should include

- adjustments for land value;
- adjustments for quality and quantity of common elements, as well as time, location, *etc.*

Comparable sales data

The subject unit for the sales comparison approach is unit number seven. Because there has been no inflation in condominium values within this location over the last few years, no adjustment for the date of sale is required. The effective appraisal date is January 1. The 1,437 SF, two bedroom, one bath unit is one year old. Construction quality is average; condition is very good; location is good; and it has one fireplace. Land value is average, and common element value is average.

Market Sale 1
Property one sold last October for $52.70 per SF. The 2,200 SF, two bedroom, one bath unit was one year old at the time of the sale. Construction quality is average; condition is good; location is average; and it has one fireplace. Land value is good, and common element value is classified as good.

Market Sale 2
Property two sold last March for $62.44 per SF. The 1,240 SF, two bedroom, two bath unit was three years old at the time of the sale. Construction quality is excellent; condition is excellent; location is average; and it has no fireplace. Land value is excellent, and common element value is excellent.

Market Sale 3
Property three sold last May for $50.90 per SF. The 1,800 SF, two bedroom, one bath unit was four years old at the time of the sale. Construction quality is average; condition is good; location is good; and it has one fireplace. Land value is good, and common element value is average.

Market Sale 4
Property four sold last September for $53.75 per SF. The 1,425 SF, two bedroom, one bath unit was one year old at the time of the sale. Construction quality is good; condition is good; location is good; and it has one fireplace. Land value is average, and common element value is average.

Market Sale 5
Property five sold last February for $49.62 per SF. The 1,100 SF, two bedroom, one bath unit was two years old at the time of the sale. Construction quality is good; condition is average; location is average; and it has no fireplace. Land value is average, and common element value is average.

Residential Section
Sample Appraisal — Condominium

Comparable sales analysis

Adjustment considerations	Number one	Number two	Number three	Number four	Number five
Sale price per square foot	$52.70	$62.44	$50.90	$53.75	$49.62
Sale date	—0—	—0—	—0—	—0—	—0—
Unit size	+ slight	—0—	+ slight	—0—	—0—
Age	—0—	+ slight	+ slight	—0—	—0—
Construction quality	—0—	- moderate	—0—	- slight	- slight
Condition	+ slight	- slight	+ slight	+ slight	+ moderate
Number of baths	—0—	- slight	—0—	—0—	—0—
Fireplace	—0—	+ slight	—0—	—0—	+ slight
Location	+ slight	+ slight	—0—	—0—	+ slight
Land value comparison	- slight	- moderate	- slight	—0—	—0—
Common element value comparison	- slight	- moderate	—0—	—0—	—0—
Overall	+	-	+	—0—	+

All of the sales chosen for the sales comparison, or market, approach are similar to the subject property's condominium unit number seven. Because sale number four has the lowest number of total adjustments and the least aggregate adjustment, it is chosen as the most comparable to the subject unit. The value estimate for unit number seven is $53.75 per square foot.

1,437 SF x $53.75 = $77,239
rounded to $77,200

Residential Section
Sample Appraisal — Condominium

Income approach procedure

To apply the income approach, first gather the necessary sale price and rental data from rented units that have recently sold. If data are scarce, sale prices of owner-occupied units sold can be related to the gross rent of comparable units that are occupied by tenants.

The GRM expresses the ratio between the sale price of a property and its monthly income. The GRM is calculated by dividing a property's sale price by its monthly income.

A gross rent multiplier (GRM) can be established for condominium property by analyzing the rental market. Once established, the GRM is multiplied by the monthly gross income of similar condominium units to arrive at an estimated value for subject units. Supporting data and the computation of the GRM are recorded on PRC-9.

Memo

Ownership & Mailing Address	Township	Tax Code	Area	Sect.	Block	Parcel	Unit
Woodlake Condominium			22	14	300	105	1002
	Division		NH Code		Card No. ____ of ____		Condo. Comm.
			Property Class		Land Use		Zoning
Property Address							

During the past two months, four comparable units that had been rented out by the owners were sold. The monthly rent and the sales data which were comparable to subject units 1, 5, and 8 are listed below.

Sale date	Sale price	Monthly rent	GRM
current	$76,665	$638	120
current	83,170	658	126
current	76,875	625	123
current	78,820	635	124

Indicated GRM is 124 (Sale price ÷ monthly income = GRM)

Monthly rent of comparable units is estimated at $635

The value indication of units 1, 5, and 8 by the income approach is $78,740
$635 month x 124 GRM = $78,740 (est. value of subject units)

PRC-9 (R-6/99)

Residential Section
Condominium Schedules

The schedules were designed to estimate the replacement cost new (RCN) of condominium buildings of six or more units. The RCN of apartments of less than six units should be estimated using the residential schedules.

To estimate the RCN of condominiums, use the Commercial-Industrial PRC. On this PRC, compute the total SFGA cost by adding the costs of each floor. Because the base price for each floor is determined on an average unit size basis, it is not necessary to adjust the total square foot cost for floor-to-wall ratio as is done with other commercial buildings. To determine the average unit size, divide the SFFA of all finished areas, including corridors and access shafts, by the number of apartment units.

The base price includes the construction of the superstructure, not including a basement. Also included in the base price are average quality wall, ceiling, and floor finishes; a typical amount for partitioning; heating; central air conditioning; electrical and lighting; kitchen cabinets; and five plumbing fixtures per apartment unit. The absence of any of these amenities requires a minus adjustment to your RCN estimate. Likewise, additional features such as fireplaces, elevators, extra plumbing fixtures, security systems, fire protection systems, *etc.*, requires a plus adjustment to your RCN estimate. The amount of the positive and negative adjustment in most cases can be found in the Residential or CIP schedules. Cost schedules for some typical apartment extras are included below the base price schedule.

Apartments cost schedule

Average Unit Size	First story			Stories 2-5		
	Wood frame, block or equal	Brick on wood frame	Brick on block wall	Wood frame, block or equal	Brick on wood frame	Brick on block wall
500	68.70	74.25	75.55	56.90	62.50	63.75
600	68.70	70.10	71.40	52.65	58.15	59.65
700	68.70	67.45	68.90	51.00	56.50	58.05
800	64.45	65.00	66.35	48.90	54.50	56.05
900	61.95	64.60	66.00	48.40	54.05	55.60
1,000	59.40	63.05	64.50	47.45	52.95	54.60
1,100	59.05	61.80	63.30	46.25	51.85	53.40
1,200	57.50	60.90	62.35	45.70	51.25	52.85
1,300	56.30	60.65	62.15	45.65	51.15	52.80
1,400	55.35	59.95	61.45	45.05	50.60	52.20
1,500	55.15	59.25	60.75	44.45	49.95	51.60
1,500+	54.45	54.95	56.45	43.60	49.20	50.70

Basements - unfinished (+)

Construction type	Per SFFA
Wood frame buildings (load bearing)	$20.45
Steel frame buildings	21.60
Concrete frame buildings	22.85

Consider basement units as finished area in average unit size computation and price using 65% of one-story cost. For basement units that are 3 to 4 feet above grade, use 75% of 1st floor base price. For recreation or comparable type finished basements, add $7.70/SF to unfinished basement cost.

Central A/C - per unit (-)

All apartments	$4.75/SFFA

For apartment buildings that have heating systems that do not require ducts, add 40% to the above price.

Plumbing (±)

Base price includes an amount for 5 typical fixtures per unit. Add or deduct $1,235 for each fixture more or less than the standard count.

High-rise apartment buildings (+)

For steel framed buildings .... Add 10% to each story base price
For concrete framed buildings ..... Add 15% to each story base price
For stories 6-10 ..... Add 3% to base price
For stories 11-20 ..... Add 10% to base price

Add for cost of other physical features from CIP or residential schedules.

Quality

Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

Residential Section

Condominium REL Table

Schedule A

Age	Effective Age E	G	A	P	U	Age	Effective Age E	G	A	P	U
1	1	1	1	18	63	70	24	39	70	102	117
2	1	1	2	19	67	71	24	40	71	102	117
3	1	1	3	21	71	72	25	41	72	102	117
4	1	1	4	22	75	73	25	42	73	102	117
5	1	1	5	24	78	74	26	43	74	103	117
6	1	1	6	26	81	75	26	44	75	103	117
7	1	1	7	29	84	76	27	45	76	103	118
8	1	1	8	32	86	77	28	47	77	104	118
9	1	2	9	35	88	78	29	48	78	104	118
10	1	3	10	38	90	79	30	49	79	104	118
11	1	4	11	41	92	80	31	51	80	105	119
12	1	5	12	44	94	81	32	53	81	105	119
13	1	6	13	47	95	82	32	55	82	105	119
14	1	6	14	50	95	83	34	57	83	106	120
15	1	7	15	54	96	84	35	59	84	106	120
16	2	8	16	57	98	85	36	62	85	107	121
17	2	8	17	60	98	86	37	64	86	107	121
18	3	9	18	63	99	87	39	66	87	108	121
19	4	10	19	66	100	88	41	68	88	108	122
20	4	10	20	69	101	89	43	70	89	109	122
21	5	11	21	72	102	90	45	72	90	109	122
22	6	12	22	74	103	91	47	74	91	110	123
23	6	12	23	76	103	92	49	76	92	110	123
24	7	13	24	78	104	93	52	78	93	111	124
25	7	14	25	79	104	94	54	79	94	111	124
26	8	15	26	81	105	95	58	81	95	112	125
27	8	15	27	82	105	96	61	83	96	113	125
28	9	16	28	83	106	97	63	84	97	113	126
29	9	17	29	84	106	98	67	85	98	114	126
30	9	17	30	84	106	99	71	87	99	115	127
31	10	18	31	85	107	100	74	89	100	116	128
32	10	18	32	86	107	101	76	90	101	116	128
33	11	19	33	87	108	102	78	92	102	117	129
34	11	20	34	88	108	103	81	94	103	118	130
35	11	20	35	88	108	104	83	95	104	118	130
36	12	21	36	89	109	105	85	97	105	119	131
37	12	21	37	90	109	106	87	98	106	120	132
38	12	21	38	90	109	107	89	99	107	121	133
39	13	22	39	91	110	108	91	101	108	121	133
40	13	22	40	91	110	109	93	102	109	122	134
41	14	23	41	92	110	110	95	103	110	123	135
42	14	23	42	92	110	111	97	104	111	124	136
43	15	24	43	93	111	112	98	105	112	125	137
44	15	24	44	93	111	113	99	106	113	126	138
45	15	25	45	94	111	114	101	107	114	126	138
46	15	25	46	94	111	115	102	108	115	127	139
47	16	26	47	95	112	116	103	109	116	128	140
48	16	26	48	95	112	117	104	110	117	129	141
49	17	27	49	95	112	118	106	112	118	130	142
50	17	27	50	95	112	119	107	113	119	131	143
51	18	28	51	96	113	120	108	114	120	132	143
52	18	28	52	96	113	121	109	115	121	133	143
53	18	29	53	97	113	122	111	117	122	134	143
54	18	30	54	97	113	123	112	117	123	135	143
55	18	30	55	97	113	124	113	118	124	136	143
56	19	31	56	98	114	125	114	119	125	137	143
57	19	31	57	98	114	126	116	121	126	138	143
58	20	32	58	98	114	127	117	121	127	139	143
59	20	32	59	98	114	128	118	122	128	139	143
60	20	32	60	98	114	129	118	123	129	139	143
61	21	33	61	99	115	130	120	125	130	139	143
62	21	33	62	99	115	131	121	125	131	139	143
63	21	34	63	99	115	132	122	126	132	139	143
64	21	35	64	99	115	133	122	127	133	139	143
65	21	35	65	99	115	134	124	129	134	139	143
66	22	36	66	100	116	135	125	129	135	139	143
67	22	37	67	100	116	136	126	130	135	139	143
68	23	37	68	101	116	137	126	131	135	139	143
69	23	38	69	101	116	138	127	131	135	139	143

Schedule B

Eff. Age	REL	Eff. Age	REL
1	100	73	68
2	99	74	67
3	98	75	67
4	97	76	67
5	96	77	66
6	95	78	66
7	94	79	66
8	93	80	65
9	92	81	65
10	91	82	65
11	90	83	64
12	89	84	64
13	88	85	63
14	88	86	63
15	87	87	62
16	86	88	62
17	86	89	61
18	85	90	61
19	84	91	60
20	84	92	60
21	83	93	59
22	82	94	59
23	82	95	58
24	81	96	57
25	81	97	57
26	80	98	56
27	80	99	55
28	79	100	54
29	79	101	54
30	79	102	53
31	78	103	52
32	78	104	51
33	77	105	50
34	77	106	49
35	77	107	48
36	76	108	47
37	76	109	46
38	76	110	45
39	75	111	44
40	75	112	43
41	75	113	42
42	75	114	41
43	74	115	40
44	74	116	39
45	74	117	38
46	74	118	36
47	73	119	35
48	73	120	34
49	73	121	33
50	73	122	31
51	72	123	30
52	72	124	29
53	72	125	28
54	72	126	26
55	72	127	25
56	71	128	24
57	71	129	23
58	71	130	21
59	71	131	20
60	71	132	19
61	70	133	18
62	70	134	16
63	70	135	15
64	70	136	14
65	70	137	13
66	69	138	11
67	69	139	10
68	69	140	9
69	69	141	8
70	68	142	7
71	68	143	5
72	68		

See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.

Commercial Section
Commercial Square Foot Schedule

The commercial square foot schedule has been developed for pricing the typical mercantile building of 1 through 4 stories. The schedule is also appropriate for free-standing mercantile buildings and pre-engineered steel store and office buildings. Use the component-in-place (CIP) method for large mercantile installations and high rise office complexes. Price apartment buildings from the apartment schedule. Supermarkets to 32,000 SF, discount centers to 140,000 SF, and pre-engineered steel store and office buildings to 8,000 SF can be priced from these schedules. Buildings used for these purposes that exceed these size limitations should be priced by using the CIP schedules.

Base prices

The base price includes amounts for excavation, foundation, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Supermarkets and discount centers only include air conditioning and sprinklers. Other features are to be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarket, discount, and pre-engineered steel store and office use classes. For all other use classes, the given price is to be adjusted by a factor from the building shape adjustment table.

Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/ stone	Block/ steel	Brick/ stone	Block/ steel	Brick/ stone	Block/ steel
Basement	9’	Unfinished	26.90	26.90	38.20	38.20	37.55	37.55
		Fin. store	34.95	34.95	46.25	46.25	45.60	45.60
		Fin. office	48.90	48.90	60.45	60.45	59.80	59.80
		Fin. apartmnts.	43.70	43.70	55.00	55.00	54.35	54.35
First floor	14’	Store	50.45	48.45	60.30	57.25	62.40	59.35
		Office	62.00	60.00	72.10	69.05	74.10	71.05
		Discount center	—	—	46.45	46.30	—	—
		Supermarket	—	—	54.40	52.90	—	—
Upper floors	12’	Finished open	38.10	36.40	51.60	49.00	50.45	47.85
		Office	49.65	47.95	63.45	60.80	62.40	59.80
		Apartments	54.25	52.50	68.35	65.75	67.25	64.65
		Store	38.85	37.10	52.35	49.75	51.25	48.60
L/B construction adjustment			1.00		0.82		0.84	

	Frame Bay					
	Size	Adj.	Size	Adj.	Size	Adj.
Structural construction weight adjustment factors	under 401	0.95	under 401	0.91	under 401	0.91
	401-1,200	1.00	401-1,200	1.00	401-1,200	1.00
	1,201-2,000	1.11	1,201-2,000	1.09	1,201-2,000	1.09
	over 2,000	1.21	over 2,000	1.18	over 2,000	1.18

Wall height adjustment: Add or deduct for each foot of wall height variation 1%

Size adjustment factors:
For buildings of less than 3,001 SF, multiply by 1.05
For buildings 3,001 to 10,500 SF, multiply by 1.00
For buildings 10,501 to 13,300 SF, multiply by 0.95
For buildings 13,301 to 21,000 SF, multiply by 0.90
For buildings over 21,000 SF, estimate building costs from CIP schedules.

One story on slab	14’	Pre-engineered store	$43.30	The framing includes features specified in the Pre-engineered Building Schedule.
		Pre-engineered office	$48.35	

Commercial building shape adjustment table
Wall ratio = cubic feet ÷ sq. ft. wall area

Wall ratio	7	7.5	8	8.5	9	9.5	10	10.5	11	12
Adjustment factor	1.54	1.48	1.43	1.39	1.35	1.32	1.29	1.26	1.24	1.20
Wall ratio	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**22**	**24**
Adjustment factor	1.16	1.13	1.10	1.08	1.05	1.04	1.02	1.00	0.98	0.96
Wall ratio	**26**	**28**	**30**	**32**	**34**	**36**	**38**	**40**		
Adjustment factor	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86		

Commercial Section
Commercial Subsidiary Schedules

Additions

Item	Cost
Plumbing (per ea. existing fixture)	
residential (type 1)	$ 1,235.00
commercial (type 2)	3,210.00
special (refer to CIP Schedule)	
Air conditioning (per SFSA)	
*apartments	4.75
store	4.70
office	5.45
*For buildings and heating systems that do not require ducts, add 40%.	
Sprinkler system (per SFSA)	
through 1,000 SF	4.50
1,001 - 2,000	4.85
2,001 - 5,000	3.00
5,001 - 10,000	2.70
over 10,000	2.65

Mezzanines (cost per SFFA)

Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable, typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish components.

Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	$15.40	$19.75
Store, display (fin. open)	25.20	35.55
Storage	15.00	19.75
Office (fin. divided)	33.75	48.25

For wood framed mezzanines, use 65% of the steel cost.

Yard paving	Per SFSA
asphalt	$ 1.85
concrete parking	2.85
concrete truck drive	3.85
crushed stone	0.80

Quality

	+50	338%	C		100%
	+25	281%		-5	95%
	+10	248%		±10	90%
AA		225%		+5	86%
	+40	210%	D		82%
	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
A		150%	E		50%
	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
B		122%		-40	30%
	-5	116%		-50	25%
	±10	110%			
	+5	105%			

Store fronts

Type	*Per SF display area
Wood framed glass & trim with	
wood siding	$ 9.95
brick	11.40
ceramic	11.85
marble or granite	18.05
Steel framed glass & aluminum trim with	
brick	16.05
ceramic	16.50
marble or granite	22.70
Steel framed glass & stainless steel or bronze trim with	
brick	23.80
ceramic	24.20
marble or granite	30.40

*In calculating the total display area include surface area of all glass, sign, and bulkhead areas, including entrance way, islands, *etc.*

Additions to basic store fronts

Display platforms (per SF)	$ 5.55
Display ceiling (per SF)	3.40
Display back (per SF)	5.90
Entrance doors	
Revolving door, each	28,500.00
Hinged aluminum & glass, each	1,100.00
Hinged bronze or stainless, each	2,350.00
Sliding panel, aluminum & glass (per SF)	22.60
Add for bronze or stainless steel	25%
Add for automatic door opener (per door)	4,200.00
Security gates	
Scissor type folding gate painted steel, each	815.00
14 roll-up grille, alum. manual, each	
4' high x 4' long	1,720.00
4' high x 6' long	1,785.00
4' high x 8' long	2,110.00
4' high x 12' long	2,385.00
4' high x 16' long	3,135.00
6' high x 4' long	1,815.00
6' high x 6' long	1,875.00
6' high x 8' long	2,170.00
6' high x 12' long	2,735.00
6' high x 16' long	3,545.00
Marquees (per SF)	
Plain, steel framed	24.20
Ornamental, steel framed	31.20
Plain, wood framed	22.60
Wood or stucco, wood framed	19.75
Illuminated plastic, single face	72.30

Commercial Section
Commercial REL Table Instructions

The Commercial REL table is designed as a guide to determine the loss in value due to physical, functional, and economic depreciation. The remaining economic life (REL) factor is dependent upon your judgement of condition, desirability, and utility of the subject's improvements.

Remember that

- the table is used only when local supportive data is non-existent. It cannot substitute for actual market data.
- age is a relative thing. A building with an actual age of 15 years may have an effective age of 3 years or 25 years based on physical condition alone. Considering desirability or utility may further reduce or increase the effective age estimate.
- actual age and effective age are the same when physical condition of the improvement is average.

The schedule attempts to relate loss in value due to condition, desirability, and utility (CDU). CDU represents depreciation as

Condition (C) = physical deterioration
Desirability (D) = economic obsolescence
Utility (U) = functional obsolescence

To use the Commercial REL table, separate these basic depreciation components into two categories for consideration

- Condition (C) = age considering physical condition
- Desirability and Utility (D and U) = effective age

Analyze the two categories, then estimate the effective age that is correlated to an REL factor. This process uses the age/life method of depreciation with an assumed economic life of 45 years.

Using the REL table

To consider the condition of the improvement, inspect the physical condition and compare it to similar improvements of the same age. By making this comparison, you can estimate the effective age according to the improvement's condition. Actual age and effective age are the same when the physical condition of the improvement is average. Conditions that substantially differ from the average result in an effective age less than or greater than the actual age. Locate this age (actual age considering condition) in the far left-hand column of Schedule A and then correlate it with the appropriate desirability and utility rating column.

When you consider desirability, focus on any loss of value due to economic obsolescence. Economic obsolescence is usually caused by factors outside of the property. Some typical areas to consider are general location, highway access, railroad access, market for products, labor markets, utility sources, community relations, police and fire protection, competition, financing, taxes, educational and recreational facilities.

When you consider utility, focus on loss of value caused by functional obsolescence. This obsolescence may be in the form of inadequacy or super-adequacy. For instance, a commercial building with a 20' ceiling height may suffer a loss of value due to functional obsolescence if the market reflects a need for 15' ceilings. The value loss is caused by over-adequacy.

When you consider a rating for utility, consider the following number of stories, expansion space, transportation access and egress, parking facilities, ceiling height, adequacy of building fixtures (*e.g.,* lighting, heating, ventilation, plumbing), existing utilities or availability, office area, traffic patterns, and building size.

Average desirability and utility requires that the improvement have the features that are typical for a mercantile business to operate in the building. Lack of economic or functional features result in a less than average rating (*i.e.,* poor or unsound). Additional features that contribute economically or functionally to the improvement result in an above-average rating (*i.e.,* excellent or good) for desirability or utility.

After you assign a desirability and utility rating, correlate the effective age from Schedule A in column one with the appropriate column (*e.g.,* average, good) to reach an effective age that reflects the improvement's CDU. Locate this final estimate of effective age in Schedule B and correlate it with an estimate of REL of the improvement.

Commercial Section
Commercial REL Table

Schedule A						Schedule B	
Age* considering physical condition	Effective age considering desirability and utility					REL	
	E	G	A	P	U	Eff. age	REL
1	1	1	1	6	11	1	98
2	1	1	2	7	12	2	96
3	1	1	3	8	13	3	94
4	1	1	4	9	14	4	92
5	1	1	5	10	15	5	90
6	1	1	6	11	16	6	88
7	1	2	7	12	17	7	86
8	1	3	8	13	18	8	84
9	1	4	9	14	19	9	82
10	1	5	10	15	20	10	80
11	1	6	11	16	21	11	78
12	2	7	12	17	22	12	76
13	3	8	13	18	23	13	74
14	4	9	14	19	24	14	72
15	5	10	15	20	25	15	70
16	6	11	16	21	26	16	68
17	7	12	17	22	27	17	66
18	8	13	18	23	28	18	64
19	9	14	19	24	29	19	62
20	10	15	20	25	30	20	60
21	11	16	21	26	31	21	58
22	12	17	22	27	32	22	56
23	13	18	23	28	33	23	54
24	14	19	24	29	34	24	52
25	15	20	25	30	35	25	50
26	16	21	26	31	36	26	48
27	17	22	27	32	37	27	46
28	18	23	28	33	38	28	44
29	19	24	29	34	39	29	42
30	20	25	30	35	40	30	40
31	21	26	31	36	41	31	38
32	22	27	32	37	42	32	36
33	23	28	33	38	43	33	34
34	24	29	34	39	44	34	32
35	25	30	35	40	45	35	30
36	26	31	36	41	—	36	28
37	27	32	37	42	—	37	26
38	28	33	38	43	—	38	24
39	29	34	39	44	—	39	22
40	30	35	40	45	—	40	20
41	31	36	41	—	—	41	18
42	32	37	42	—	—	42	16
43	33	38	43	—	—	43	14
44	34	39	44	—	—	44	12
45	35	40	45	—	—	45	10
46	36	41	—	—	—	over 45	10
47	37	42	—	—	—		
48	38	43	—	—	—		
49	39	44	—	—	—		
50	40	45	—	—	—		

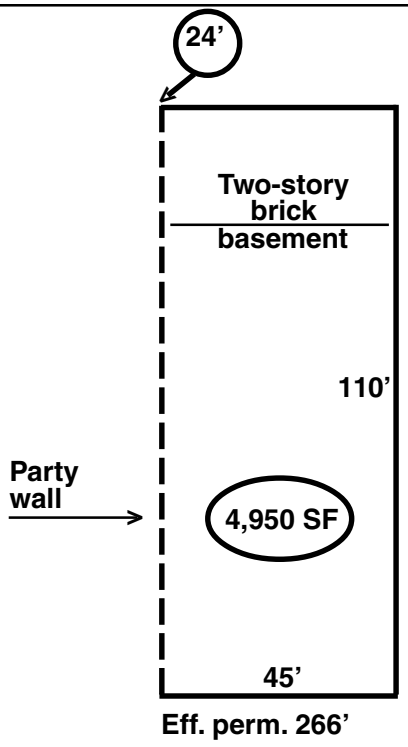
*Actual age and effective age are the same when physical condition of improvement is average.

Commercial Section
Sample Appraisal — Commercial Square Foot Schedule

The subject building is a two-story brick building with a full basement, 45’ x 110’, with an eave height of 24’ (4,950 SF). A full party wall is on one side.

- In calculating the effective perimeter, use 60% of the party wall length.
- The quality of construction is grade C.
- The basement is unfinished with a wall height of 9’. The first floor is divided into a finished store with a wall height of 14’. The second floor is divided into 4 finished apartments with a wall height of 10’.
- The building is of wood-joist construction throughout with brick exterior walls.
- Other features include
  - — central air conditioning and sprinkler system on first and second floors;
  - — 400 SF steel frame with aluminum glass front;
  - — 4 standard units (standard equals 5 fixtures) of residential plumbing and 4 type-2 commercial plumbing fixtures.

A sample Property Record Card is on the following page.



Procedure

1	Enter the “Data bank” and wall height (WH) values.	
2	Select the proper base price for each floor level.	
	Wood joist construction, brick walls	
	Basement - unfinished	$ 26.90
	First floor - store	50.45
	Second floor - apartments $54.25 x 0.98 (WH Adj.) =	53.17
3	Subtotal (base price)	130.52
4	Calculate the base price adjustment (BPA) factor.	
	Note: Subject building requires no adjustment for size or construction weight (1.00).	
	a Calculate the effective perimeter: 45’ + 110’ + 45’ + (110’ x 60%) = 266 LF	
	b Shape factor: 4,950 ÷ 266 = ratio of 18.61 = 1.02 shape factor	
	c Calculate and apply the BPA factor (size 1.00 x shape 1.02 x height 1.00) to the total base price	
	130.52 x 1.02	133.13
5	Make the square foot price adjustments per story for variations in heating, air conditioning, lighting, sprinklers, *etc.*	
	a Central air conditioning (first floor store) $4.70 + (second floor apartment) $4.75	9.45
	b Sprinkler system (first and second story) 2 stories @ $2.70 each story	5.40
6	Subtotal C grade base SF price	147.98
	Multiply buy the square foot area	x 4,950
	Subtotal	732,501
7	Add the cost of all other features and additions on lump sum basis	
	a Plumbing:	
	20 fixtures (Type 1) @ 1,235 = $24,700 + 4 fixtures (Type 2) @ $3,210 = $12,840	37,540
	b Store front: 400 SF @ $16.05	6,420
	Total C grad manual’s replacement cost	776,461
8	Apply the proper factor {C x G (C grade) x NH x A}	x 1.00
	Replacement cost new	776,461
9	Multiply by the REL factor	0.76
10	Market (Full) value	$ 590,110

Commercial Section

Sample Appraisal — Commercial Square Foot Schedule

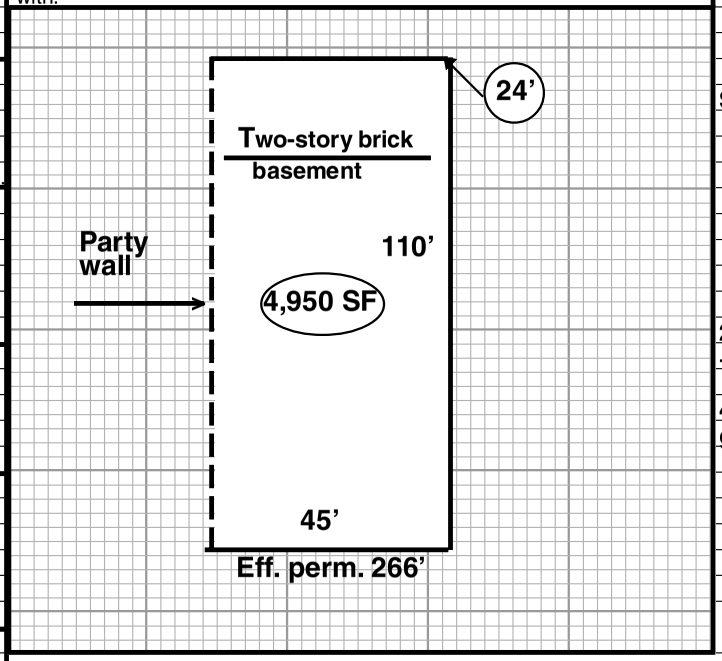
Property Record — Commercial — Industrial

Construction Specifications						
Foundation						
Sprd. Ftg.	✓	Pile				
Caisson		Other				
Wall Framing	B	1	2	3	A	
Wood						
Steel O/FP						
Reinf. Concrete						
Load Bearing	✓	✓	✓			
Frame Bay - Bay Area	N/A					
Floors						
Wood		✓	✓			
Steel O/FP						
Reinf. Concrete						
Frame	(Wood)	Steel	Conc.			
Exterior Walls						
Siding						
Masonry (Blk./Brk.)	✓	✓				
Steel						
Glass						
Finish						
Unfinished	✓					
Finished Open		✓				
Finished Divd.			✓			
Heat						
Cent. Wm. Air		✓	✓			
Ht. Wt/Steam						
Unit Heaters						
None	✓					
Air Conditioning						
Central		✓	✓			
Unit						
None	✓					
Roofing						
Composition	✓	Shingle				
Slate		Metal				
Frame	(Wood)	Steel	Conc.			
Plumbing Type						
1	20 fixtures	2	4 fixtures			
3		4				
Sprinkler	1st /2nd floors					

Use								
Store 1st	✓	Office		Vacant B	✓			
Apt. 2nd	✓	WH		Abandoned				
Factory								
No. of Units								
Avg. Unit Size	N/A							
No. Rooms Per Unit								
2	Brick	Sty.	Comm. SF					

Data Bank	
SF Ground Area	4,950
Eff. Perim LF	266
CF of Bldg.	163,350
SF Wall Area	8,778
Wall Ratio	18.61

Prorated @ _____% with:



Description		Computation
Flr. Price x Ht. Adj.	WH	
$24.95 x 1.00	9 Bsmt.	$ 26.90
$48.85 x 1.00	14 1st Floor	50.45
$54.30 x 0.98	10 2nd Floor	53.17
	3rd Floor	
	Sched.	
	Base Price	130.52
Size 1.00 x Shape 1.02 x Weight 1.00	BPA 1.02	133.13
	Adj. Base Price	
	Heat Incl.	
Store $4.70 + Apt. $4.75	A/C	9.45
	Electrical Light	Included
1st flr. 4,950 SF $2.70	Sprinkler	5.40
+2nd flr. 4,950 SF $2.70		
Total 9,900 SF $5.40		
	SF Price	$147.98
	SF	4,950
	Subtotal	732,501.00
20 Res. Type 1 @ $1,235 each	Plumbing	37,540.00
+4 Comm. Type 2 @ $3,210 each		
	Partitions	
400 SF Stl. frm.		
glass/alum. trim @ $16.05	Front	6,420.00
	Canopy	
	Dock	
S C M I Grade C	Total	$776,461.00
C&D 1.00 G 1.00 NH 1.00	A 1.00 = FAC	1.00
Eff. Age 12 / Eff. Age 12 / CDU Avg/Avg / Age 12	Replacement Cost New	$776,461.00
Depreciation = 24%	REL	0.76
	Full Value	$590,110.00

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. Cost New	REL	Full Value

Listed by: JRT
Date: 1/02

Total full value other buildings
Total full value all buildings $590,110.00

PRC-4 (R-1/00) (opposite PRC-3)

Commercial Section
Apartment Schedules

The apartment schedules were designed to estimate the replacement cost new (RCN) of apartment buildings of six or more units. The RCN of apartments of less than six units should be estimated using the residential schedules.

To estimate the RCN of apartments, use the Commercial-Industrial PRC. On this PRC, compute the total SFGA cost by adding the costs of each floor. Because the base price for each floor is determined on an average unit size basis, it is not necessary to adjust the total square foot cost for floor-to-wall ratio as is done with other commercial buildings. To determine the average unit size, divide the SFFA of all finished areas, including corridors and access shafts, by the number of apartment units.

The base price includes the construction of the superstructure, not including a basement. Also included in the base price are average quality wall, ceiling, and floor finishes; a typical amount for partitioning; heating; central air conditioning; electrical and lighting; kitchen cabinets; and five plumbing fixtures per apartment unit. The absence of any of these amenities requires a minus adjustment to your RCN estimate. Likewise, additional features such as fireplaces, elevators, extra plumbing fixtures, security systems, fire protection systems, *etc.*, requires a plus adjustment to your RCN estimate. The amount of the positive and negative adjustment in most cases can be found in the Residential or CIP schedules. Cost schedules for some typical apartment extras are included below the base price schedule.

Apartments cost schedule

Average Unit Size	First story			Stories 2-5		
	Wood frame, block or equal	Brick on wood frame	Brick on block wall	Wood frame, block or equal	Brick on wood frame	Brick on block wall
500	68.70	74.25	75.55	56.90	62.50	63.75
600	68.70	70.10	71.40	52.65	58.15	59.65
700	68.70	67.45	68.90	51.00	56.50	58.05
800	64.45	65.00	66.35	48.90	54.50	56.05
900	61.95	64.60	66.00	48.40	54.05	55.60
1,000	59.40	63.05	64.50	47.45	52.95	54.60
1,100	59.05	61.80	63.30	46.25	51.85	53.40
1,200	57.50	60.90	62.35	45.70	51.25	52.85
1,300	56.30	60.65	62.15	45.65	51.15	52.80
1,400	55.35	59.95	61.45	45.05	50.60	52.20
1,500	55.15	59.25	60.75	44.45	49.95	51.60
1,500+	54.45	54.95	56.45	43.60	49.20	50.70

Basements - unfinished (+)

Construction type	Per SFFA
Wood frame buildings (load bearing)	$20.45
Steel frame buildings	21.60
Concrete frame buildings	22.85

Consider basement units as finished area in average unit size computation and price using 65% of one-story cost. For basement units that are 3 to 4 feet above grade, use 75% of 1st floor base price. For recreation or comparable type finished basements, add $7.70/SF to unfinished basement cost.

Central A/C - per unit (-)

All apartments	$4.75/SFFA

For apartment buildings that have heating systems that do not require ducts, add 40% to the above price.

Plumbing (±)

Base price includes an amount for 5 typical fixtures per unit. Add or deduct $1,235 for each fixture more or less than the standard count.

High-rise apartment buildings (+)

For steel framed buildings .... Add 10% to each story base price
For concrete framed buildings ... Add 15% to each story base price
For stories 6-10 ..... Add 3% to base price
For stories 11-20 ..... Add 10% to base price

Quality

	+50	338%	C		100%
	+25	281%		-5	95%
	+10	248%		±10	90%
AA		225%		+5	86%
	+40	210%	D		82%
	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
A		150%	E		50%
	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
B		122%		-40	30%
	-5	116%		-50	25%
	±10	110%			
	+5	105%			

Add for cost of other physical features from CIP or residential schedules.

Commercial Section
Apartment REL TAble

Schedule A

Age	Effective Age					Age	Effective Age				
	E	G	A	P	U		E	G	A	P	U
1	1	1	1	15	31	63	26	45	63	95	113
2	1	1	2	16	32	64	27	46	64	95	113
3	1	2	3	17	34	65	29	48	65	96	114
4	2	3	4	19	36	66	29	49	66	97	114
5	3	4	5	20	37	67	30	51	67	98	115
6	4	5	6	21	39	68	31	52	68	98	115
7	5	6	7	22	40	69	32	53	69	99	116
8	6	7	8	23	42	70	33	53	70	99	116
9	6	8	9	24	43	71	33	53	71	99	116
10	7	9	10	25	44	72	34	54	72	100	117
11	7	10	11	26	46	73	34	54	73	100	117
12	7	10	12	27	48	74	34	55	74	100	117
13	8	11	13	29	49	75	35	56	75	101	118
14	9	12	14	30	51	76	35	56	76	101	118
15	9	13	15	31	53	77	35	57	77	101	118
16	10	14	16	32	54	78	35	57	78	101	118
17	10	15	17	34	56	79	36	58	79	102	119
18	10	15	18	35	60	80	36	58	80	102	119
19	11	16	19	36	60	81	36	58	81	102	119
20	11	16	20	37	62	82	36	58	82	102	119
21	11	17	21	39	65	83	37	59	83	103	120
22	11	18	22	40	67	84	37	59	84	103	120
23	12	19	23	42	69	85	37	59	85	103	121
24	13	20	24	43	72	86	37	59	86	103	121
25	14	20	25	44	75	87	38	60	87	104	122
26	14	21	26	46	79	88	38	62	88	106	123
27	15	22	27	48	83	89	38	65	89	107	124
28	15	22	28	48	84	90	38	66	90	107	124
29	15	22	29	49	87	91	39	67	91	108	124
30	15	23	30	51	88	92	39	68	92	109	124
31	15	23	31	53	89	93	39	69	93	110	124
32	16	24	32	54	91	94	40	72	94	111	124
33	16	24	33	55	91	95	40	75	95	113	124
34	16	25	34	56	92	96	40	79	96	114	124
35	16	25	35	58	93	97	41	80	97	114	124
36	17	26	36	60	94	98	41	83	98	115	124
37	17	27	37	62	95	99	42	87	99	116	124
38	17	28	38	63	95	100	43	88	100	117	124
39	17	28	39	65	96	101	44	89	101	118	124
40	18	29	40	67	98	102	45	91	102	119	124
41	18	29	41	68	98	103	45	92	103	120	124
42	18	30	42	69	99	104	46	93	104	122	124
43	19	30	43	72	100	105	47	93	105	122	124
44	19	31	44	75	101	106	48	93	106	123	124
45	19	31	45	76	101	107	48	94	107	124	124
46	19	32	46	79	102	108	51	95	108	124	124
47	19	32	47	80	102	109	52	96	109	124	124
48	20	33	48	83	103	110	52	98	110	124	124
49	20	34	49	87	104	111	53	99	111	124	124
50	20	34	50	87	105	112	53	99	112	124	124
51	21	35	51	88	106	113	54	100	113	124	124
52	21	35	52	88	106	114	54	101	114	124	124
53	22	36	53	89	107	115	58	102	115	124	124
54	22	37	51	91	108	116	59	102	116	124	124
55	22	38	55	91	108	117	59	103	117	124	124
56	23	39	56	92	109	118	60	104	118	124	124
57	23	39	57	92	109	119	62	106	119	124	124
58	24	40	58	93	110	120	65	107	120	124	124
59	25	42	59	93	110	121	66	107	121	124	124
60	25	43	60	94	111	122	66	108	122	124	124
61	25	43	61	94	112	123	67	109	123	124	124
62	26	44	62	95	113	124	68	109	124	124	124

Schedule B

Eff. Age	REL	Eff. Age	REL
1	100	63	50
2	99	64	50
3	98	65	49
4	96	66	49
5	95	67	48
6	94	68	48
7	93	69	47
8	92	70	47
9	91	71	47
10	90	72	46
11	89	73	46
12	88	74	46
13	87	75	45
14	86	76	45
15	85	77	45
16	84	78	45
17	83	79	44
18	82	80	44
19	81	81	44
20	80	82	44
21	79	83	43
22	78	84	43
23	77	85	43
24	76	86	43
25	75	87	42
26	74	88	41
27	73	89	40
28	73	90	40
29	72	91	39
30	71	92	38
31	70	93	37
32	69	94	36
33	69	95	35
34	68	96	34
35	67	97	34
36	66	98	33
37	65	99	32
38	65	100	31
39	64	101	30
40	63	102	29
41	63	103	28
42	62	104	27
43	61	105	27
44	60	106	26
45	60	107	25
46	59	108	24
47	59	109	23
48	58	110	22
49	57	111	21
50	57	112	21
51	56	113	20
52	56	114	19
53	55	115	18
54	54	116	17
55	54	117	16
56	53	118	15
57	53	119	14
58	52	120	13
59	52	121	13
60	51	122	12
61	51	123	11
62	50	124	10

See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.

Commercial Section
Sample Appraisal — Apartments

Apartment (6 unit) grade C
Two-story and basement brick
Size: 40' x 68' + 6' x 10' offset
6' x 13' (open masonry porch)

Foundation — Concrete wall and footings.
Walls
Basement — 12" concrete 4' high and 4" brick on 8" concrete block 4' high. Drywall interior.
First and second floors — 4" face brick on 8" concrete block. Drywall interior including aluminum sash windows.
Floors
Basement — Asphalt tile on concrete.
1st/2nd — Hardwood on 1" sub and wood joists.
Roof — Flat type, composition roof on insulated wood decking and rafters, suspended drywall ceiling.
Mechanical features
Lighting — Conduit including regular fixtures.
Heating — Forced air, gas fired.
Plumbing — 12 tiled bathrooms, 6 kitchen sinks, 6 water heaters, 1 janitor sink.
Other features — Partitions, drywall on wood

Cost approach procedure

1. Determine the average unit size by dividing the total finished (apartment) floor area including finished common area by the total number of living units within the building.
2. Select the corresponding base prices for each floor level.
3. Make the necessary square foot price adjustments for any variations.
4. Subtotal the square foot price and multiply by the ground area of the building.
5. Add the cost of all other features and additions to arrive at the total C grade base.
6. Apply locally derived adjustment factors to arrive at the total replacement cost.

Note: The SFGA of buildings is typically the area above the foundation or basement. However, some structures have different square foot areas on different stories, *i.e.*, the second floor may have more or less SF than the first floor and the third floor more or less than the second. In cases like this the total SF area of all floors is divided by the number of stories being priced to derive an average SFGA. In this example problem, the SFGA is 2,780 SF.

1 Average unit size =
$\frac{\text{8,340 finished SFFA}}{\text{6 apartment units}}$ = Avg. unit size 1,390 SF

2 Base prices =
Basements (units 4' above grade)

$61.45 x 75%	$46.09
1st floor	+61.45
2nd floor	+52.20
Total base cost	$159.74

3 Other features priced per SF

None	0.00

4 **Subtotal**

2,780 SFGA x $159.74 base=	**$444,077**

5 Other features priced at lump sum

19 extra plumbing fixtures @ $1,235	$23,465
Open masonry porch (Residential Schedule)	
Total lump sum additions	**$2,400**

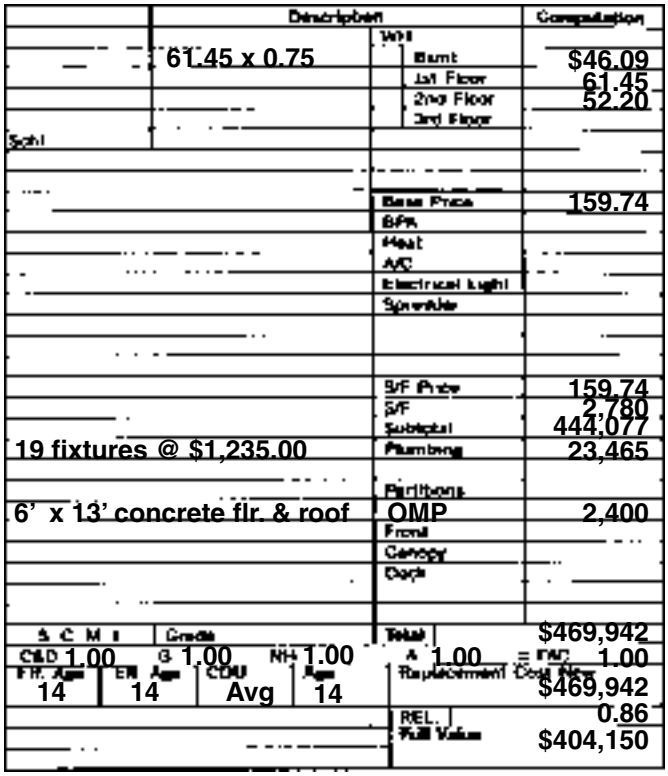
6 **Subtotal** **$25,865**

7 Local adjustment factors

100% cost factor	
x 100% design factor	
x 100% neighborhood factor	
x 100% appraiser factor	
= 100% composite factor	x 1.00
Total RCN	**$469,942**

8 Multiply REL factor 0.86

9 Market (Full) value **$404,150**



Commercial Section
Sample Appraisal — Apartments (Three Approaches)

This sample appraisal demonstrates the sales comparison or market, income, and cost approaches to value using the PRC system. Use PRC-3 to compute land value and to record the address and property index number (PIN). Use PRC-4 to list and compute building value using the square foot method of the cost approach. Use the PRC-6 for the market and income approaches.

The subject property is a three-story brick on block apartment building measuring 68' x 102'. The building is on a 209' x 212' lot that has a value of $2.35 per square foot, based on market comparison of similar property. This 24 unit apartment has wood floors, a flat composition roof and a central forced air heating system. Each apartment has standard plumbing and an extra half bath (2 fixtures). The income data has been compiled for the previous three years and the adjusted data has been supported by market research. The rental income and expenses are listed on PRC-6. The overall rate for sample purposes for this type of investment is market supported at 12.3 percent.

Five comparable apartment buildings have sold within the last year. The market indicates a 5 percent increase in value per year. Brief descriptions are given below.

Market Sale 1
453 Fox Court — a 28 unit building sold last January 14th for $966,020. The gross rent for the 96 room structure is $141,680 annually. The condition is inferior to the subject; a 5 percent adjustment is necessary. A 5 percent adjustment is also necessary for the age because the apartment sold one year ago.

Market Sale 2
1029 Park Street — This building has 24 units with 92 rooms and sold last December 28th for $934,890. The gross rent is $143,220 annually. The building's floor plan and location are considered inferior to the subject requiring adjustments of 6 percent and 3 percent, respectively.

Market Sale 3
1207 Pine Avenue — This 20 unit building sold one year ago for $781,000. The apartment has 88 rooms and a gross rent of $127,930 annually. The quality is considered to be superior to the subject and a 5 percent adjustment is necessary. However, the location is considered inferior to the subject and a 5 percent adjustment is necessary. A 5 percent adjustment is also necessary because it sold approximately one year ago.

Market Sale 4
759 Seneca Boulevard — This property sold for $911,570 on December 31st. The building has 22 units, 92 rooms and a gross rent of $145,090 annually. The condition and location of the property are considered superior to the subject and a 5 percent adjustment for condition and a 10 percent adjustment for location is necessary.

Market Sale 5
806 State Street — This property was sold on December 20th, for $928,070. The building has 22 units and 85 rooms. The gross income for the year is $145,010. The property is similar to subject property except this comparable condition is considered superior to the subject and a 5 percent adjustment is necessary.

After the comparables are adjusted, the appropriate units of comparison are selected and market value is computed.

All income data is provided on PRC-6. The income, expenses, and capitalization rate are supported by the 5 comparable sales.

The final correlation of value is converted to an expression of REL and applied to PRC-4 that serves as the basic record.

Property Record — Commercial — Industrial

Construction Specifications

Foundation						
Sprd. Ftg.	✓	Pile				
Caisson		Other				

Wall Framing	B	1	2	3	A	
Wood						
Steel O/FP						
Reinf. Concrete						
Load Bearing		✓	✓	✓		
Frame Bay - Bay Area	N/A					

Floors						
Wood			✓	✓		
Steel O/FP						
Reinf. Concrete		✓				
Frame	(Wood)	Steel	Conc.			

Exterior Walls						
Siding						
Masonry (Blk) (Brk)		✓	✓	✓		
Steel						
Glass						

Finish						
Unfinished						
Finished Open						
Finished Divd.		✓	✓	✓		

Heat						
Cent. Wm. Air		✓	✓	✓		
Ht. Wt/Steam						
Unit Heaters						
None						

Air Conditioning						
Central						
Unit						
Tenants - Window units only						
None						

Roofing				
Composition	✓	Shingle		
Slate		Metal		
Frame	(Wood)	Steel	Conc.	

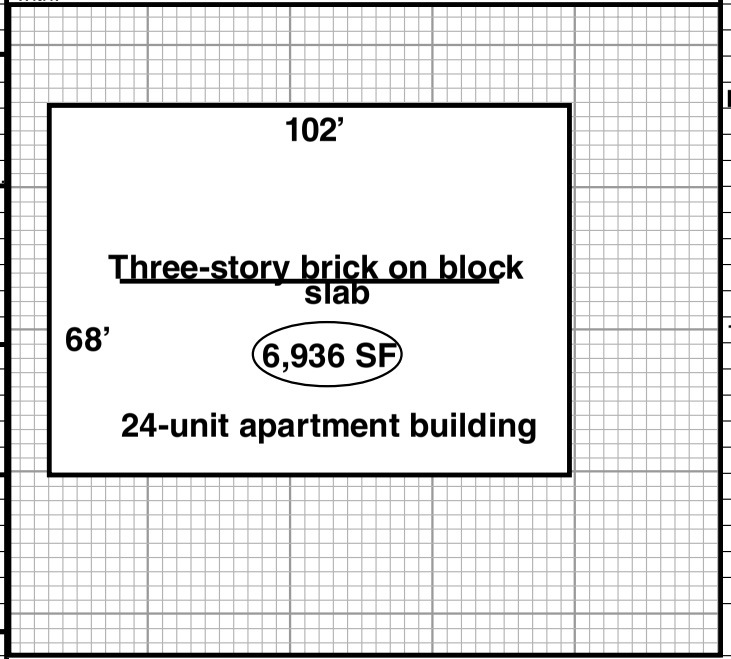
Plumbing Type			
1	168 fixtures	2	
3		4	
	Sprinkler		

Use					
Store		Office		Vacant	
Apt.	✓	WH		Abandoned	
Factory					

No. of Units	24
Avg. Unit Size	867
No. Rooms Per Unit	3.75

Data Bank	
SF Ground Area	6,936
Eff. Perim LF	
CF of Bldg.	
SF Wall Area	
Wall Ratio	
3 Brick Sty.	

Prorated @ _____% with:



Description	Computation
Flr. Price x Ht. Adj.	WH
	Bsmt.
	1st Floor $ 66.00
	2nd Floor 55.60
	3rd Floor 55.60
	Sched.
	Base Price 177.20
Size ____ x Shape ____ x Weight ____	BPA
	Adj. Base Price
	Heat
Deduct $4.75 per flr. x 3 flrs.	A/C -14.25
	Electrical Light
	Sprinkler
	SF Price 162.95
	SF 6,936
	Subtotal 1,130,221
168 - 120 = 48 fixtures @ $1,235	Plumbing 59,280
	Partitions
	Front
	Canopy
	Dock
	Total $1,189,501

S (O) M (I) Grade C

C&D 1.00 G 1.00 NH 1.00 A 1.00 = FAC 1.00

Eff. Age	Eff. Age	CDU	Age
15	15	Good	15

Depreciation =

Replacement Cost New $1,189,501

REL 0.85

Full Value $ 987,286

*The effective age indicated by the manual is 15 years resulting in an REL of 85 percent.

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. Cost New	REL	Full Value

Listed by: JM

Date: 1/1/02

Total full value other buildings

Total full value all buildings $ 987,286

PRC-4 (R-1/00) (opposite PRC-3)

Property Record — Commercial — Industrial

Ownership and Mailing Address

Taxpayer's name
Address

Township	Volume	Tax Code	Area	Sect.	Block	Parcel	Unit
			01	02	300	004	0050

Property Class	Land Use	Zoning	NH Code	Card No. ____ of ____	Condo. Comm.

Record of Ownership	Date	Deed Stamps	Sale Price

Property Address

Your town
Illinois, 66666

Street		Nghbhd.		Utilities		Topo.		Division
Private Rd.		Improved		Water		Level		
Cul-de-sac		Static		Sewer		High		
Alley		Decline		Gas		Low		
Traffic Lt.		Blighted		Electric		Rolling		
Traffic Hvy.						View		

Memo

Building Permit Record

Date	Number	Amount	Year Assessed	N/C	P/U Year	Purpose

Land Computations

Unit Type	No. Units	Depth	Unit Value	D. Fac.	I. Fac.	Full Value
SF	44,308		2.35			$104,214

Summary of Assessed Values

	Orig. Asmt.: Year 2002			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land	$104,214	33 1/3%	$ 34,735			
Bldgs.	$987,286	33 1/3%	$ 329,062			
Total	$1,091,500	33 1/3%	$ 363,797			

	Rev. by: Year _____			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land						
Bldgs.						
Total						

	Rev. by: Year _____			Rev. by: Year _____		
	Full Value	Asmt. Level	Assessed Value	Full Value	Asmt. Level	Assessed Value
Land						
Bldgs.						
Total						

PRC-3 (R-1/00) (opposite PRC-4)

IL-492-1549

Commercial Section
Sample Appraisal — Apartments (Three Approaches)

Income and Market Analysis

Ownership & Mailing Address	Township	Volume	Tax Code	Area	Sect.	Block	Parcel	Unit
				10	02	300	004	0050
Property Address			NH Code		Card No. 1 of 1		Condo. Comm.	

Income Analysis

Income Information Source	Year 1999	Year 2000	Year 2001	Adjusted
Rents obtained from owner and management co.	$145,585	$147,675	$149,600	$149,600
Gross Income				
Vacancy & Rent Loss	3%	-4,488	Effective Gross	$145,112

Expenses

%	Item	Year 1999	Year 2000	Year 2001	Adjusted
	Management	5,665	5,720	5,715	5,808
	Legal				
	Administrative	253	313	253	253
	Fuel	3,289	3,740	3,624	3,625
	Electrical	412	385	456	456
	Water	181	198	198	198
	Janitor	4,532	4,532	4,647	4,647
	Other Salaries				
	Scavenger	1,133	1,248	1,248	1,248
	Decorating	907	907	1,017	962
	Elevators				
	Maintenance	1,023	1,133	764	962
	Operating				
	Insurance	566	621	621	621
	Real Estate Tax	6,402	9,603	9,289	—0—
	Miscellaneous				
	Replacement Reserve	7,645	8,019	8,019	8,019
	Total Expense				$26,799
	Net Income				$118,313

Income $118,313 / Rate 12.3 % = Value $ 961,894

Market Analysis

Comparables

Parcel No.	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5
Address	453 Fox	1029 Park	1207 Pine	759 Seneca	806 State
Date of Sale	1-14-01	12-28-01	1-2-01	12-31-01	12-20-01
L:B	1:5.5	1:6	1:5.5	1:6	1:5.5
Sales Price	$966,020	$934,890	$781,000	$911,570	$928,070
Gross Rent	141,680	143,220	127,930	145,090	145,010
GIM	6.8	6.5	6.1	6.3	6.4
Expenses	32,571	32,879	29,502	33,341	30,858
Net income	109,109	110,341	98,428	111,749	114,152
Unit of Comparison OAR	11.3	11.8	12.6	12.3	12.3
No. Units	28	24	20	22	22
Unit Price	34,500	38,953	39,050	41,435	42,185
Rooms/unit	3.4	3.8	4.4	4.2	3.8
Total SF					
SF Price					
Rooms	96	92	88	92	85
Price/room	10,062	10,161	8,875	9,908	10,918

Adjustments

Size					
Quality			- 5%		
Condition	+ 5%			- 5%	- 5%
Location		+ 3%	+ 5%	- 10%	
Time	+ 5%		+ 5%		
Floor plan		+ 6%			
Net Adjustment					
Adj. Unit Price	+ 10%	+ 9%	+ 5%	- 15%	- 5%
Adj. SF	37,950	42,458	41,002	35,219	40,075
Price/room	11,068	11,075	9,318	8,421	10,372

Subject 24 apt.	Units @ $40,075	= Value	$ 961,800
Subject 90 rooms	Units @ $ 10,372	= Value	933,480
Subject $ 149,600	Annual Rent @ 6.4	(GIM) = Value	957,440

MV	$ 957,440	BR	$853,226	= REL 0.85
LD	- 104,214	RCN	$1,189,501	Eff. Age 15
BR	$ 853,226			

Commercial Section
Instructions for Motel — Hotel Schedules

Sales comparison, or market, approach

In motel or hotel valuation, the sales comparison, or market, approach is recommended for use primarily as a method of cross-checking the income and cost approaches. A market comparison can be developed on the basis of price per square foot, but the number and nature of the adjustments typically required can significantly limit the effectiveness of the market approach.

If a sales comparison, or market, approach is selected, however, you are not limited to the immediate community for selection of comparables to use in the market analysis. A motel or hotel's sphere of competition can easily extend to a radius of 50 to 75 miles, making selection of comparables feasible from a wide geographic area.

Income approach

Like other commercial properties, motel and hotel properties are developed because of their ability to provide an income stream over an extended period of time. The risks involved in owning motels or hotels are high, but as the returns are high as well, lodging properties are ideal for investment purposes. Therefore, the income approach to value is the preferred technique for motel or hotel valuation. The amount of individual judgement required to determine hard-to-measure functional and economic depreciation for the cost approach, as well as the complex comparability adjustments for the market approach, renders those techniques less reliable and, in some cases, unsupportable. Also, replacement costs may have little to do with an investor's decision to buy or sell a motel or hotel when the primary concern is the potential income and return on investment the facility can provide. Therefore, whenever revenue and expense data are available, the income approach should be applied.

Cost approach

Use the following schedules to determine the RCN of virtually any size or type of motel or hotel. If you use these, in conjunction with the quality grading procedure and the REL tables provided in this manual, you should find a reasonable estimate of value. A more accurate indication of value can be determined, however, by using the income approach to value whenever possible. Correlate that result with the value derived from the cost and market approaches to arrive at a final indication of value.

To use the base price schedules, follow the steps below.

- Locate the applicable schedule according to the number of stories.
- Find the column under the most appropriate description of exterior wall covering and type of construction.
- Locate the base price in the column that corresponds to the square foot floor area closest in size to the actual SFFA.
- Compute the SFFA. Multiply the SFGA by the total number of stories, excluding basements.
- Multiply the appropriate base price by the actual SFFA to arrive at the base replacement cost.

Note: It may be necessary to adjust the base cost for variations in story height and structural framing, or to add or subtract costs for special features and construction variations to arrive at the RCN for the entire structure.

The base prices in the schedules have been developed for typical C grade quality motels and hotels. Costs included in the base price represent all components normally associated with construction of these structures, such as

- site preparation;
- footings;
- foundation and concrete slab on grade;
- structural floors;
- roof and roof cover;
- exterior wall coverings;
- windows and doors;
- interior wall, floor, and ceiling finishes;
- plumbing and bathroom fixtures;
- heating and cooling;
- lighting;
- trim;
- shelves;
- vanities; and
- alarm systems.

Further description of special features included in the base price can be found in each schedule. Costs for features not included in the base price, or included but not applicable to the subject property, can be found in the component-in-place schedules. Costs for lobby finishes, meeting rooms, and service areas have been included in the base price according to what is typical for that size of motel or hotel. Special fixtures or equipment for kitchens, restaurants or lounges, however, should be priced from the CIP schedules.

Commercial Section
Instructions for Motel — Hotel Schedules

Quality grade

Schedule prices are for normal C grade construction of average quality materials and workmanship. Typical construction may vary, however, depending on the type and size of motel or hotel. When you determine the quality grade, remember that a five or more story hotel generally has a higher average quality grade than a one-story motel.

- **A - AA grade** — buildings generally having outstanding architectural style and design, constructed with the finest quality materials and excellent workmanship; interior finish is of the highest quality; wall and floor coverings are high quality and good sound insulation is present; built-in features include clothes closets, deluxe central heating and cooling system with individual room thermostats, high grade plumbing and lighting fixtures, TV switch and antennae systems, radio and intercom systems, exhaust fans and recessed heat and sun lamps.
- **B grade** — buildings constructed with good quality materials and workmanship of an architectural style superior to an average, standardized design; interior finish is generally the same as described for A - AA grade buildings, although of good, rather than excellent, quality.
- **C grade** — buildings constructed with average quality materials and workmanship in a generally standardized design of moderate architectural style; interior finish is of average quality, floor and wall coverings (carpet and tile; paint, tile or vinyl wall covering) are average, and there is some sound insulation; built-in features include vanities, luggage or wardrobe racks, individual room heating and cooling units with controls, standard grade plumbing and lighting fixtures, exhaust fans, and recessed heat lamps.
- **D grade** — buildings constructed with economy quality materials and adequate workmanship; architectural design is simple with a “no-frills style”; interior finish is functional rather than decorative, with painted concrete block or drywall partitions, asphalt tile flooring, low cost individual room heating and cooling units, economy grade plumbing and lighting fixtures, and few built-in vanity features; room sizes are generally smaller than average and public areas are minimal.
- **E grade** — buildings constructed with cheap quality materials and poor workmanship; interior is of cheap finish materials and fixtures with no built-in or added features.

Depreciation

When you determine the REL of a motel or hotel, all three forms of depreciation (*i.e.,* physical, functional, and economic) must be carefully considered, because motels and hotels can suffer from functional or economic obsolescence at a much faster rate than they deteriorate physically. The motel/hotel industry is highly competitive. Lodging facilities must react quickly to the many constantly changing factors that affect the industry or risk becoming less competitive, thereby suffering a shortened economic life and loss in value.

A motel or hotel that fails to stay competitive suffers functional obsolescence. Changes in consumer preferences, such as for interior hallway access rather than exterior corridors, and competition from newer properties, such as those that offer conference rooms rather than large ballrooms, are only a few examples of the types of changes that cause functional obsolescence in motels and hotels.

Motels and hotels can also be affected by external factors that cause economic obsolescence. An energy crisis; economic cycles; changing travel, transportation, and vacation habits; even changes in the preference of suburban quiet over downtown convenience; are all factors that can reduce the economic life of a motel or hotel and therefore render a loss in value. But, these same factors could benefit other motels and hotels, lengthening their economic life and increasing their value.

As can be seen from the examples given above, a motel or hotel could become functionally or economically obsolete at any given point in its economic life. The physical structure could be five years old but have an REL of zero. It is also possible, however, that the same property, renovated with all adverse external factors removed, could reclaim an economic life of up to 25 to 30 years. The presence of either functional or economic obsolescence can shorten the life span of a facility, but it is important to remember that this economic life cycle can also be extended if the property is well maintained and periodically upgraded and renovated.

Due to a typically higher rate of depreciation, an adjusted age table based on a potential economic life of 30 years has been provided for use in conjunction with the commercial REL table.

Commercial Section
Motel — Hotel Schedules

Motel, 1-story (cost per SFFA)

Story height : 9 feet
Additional features: none

Square foot floor area	Wood frame walls				Wood truss	
	Exterior wall cover					
	Brick veneer	Aluminum siding	Wood siding	Wood shingles	Concrete block	Brick on block
2,000	$ 125.10	$ 113.20	$ 113.40	$ 115.70	$ 112.25	$ 130.20
3,000	109.40	100.85	101.00	102.65	100.15	113.15
4,000	101.65	94.65	94.80	96.15	94.15	104.55
6,000	97.60	91.35	91.45	92.65	90.85	100.30
8,000	95.65	89.65	89.75	90.95	89.25	98.20
10,000	93.70	88.15	88.20	89.30	87.70	96.05
12,000	90.45	85.65	85.70	86.70	85.25	92.45
14,000	89.75	85.10	85.15	86.10	84.70	91.80
16,000 +	89.30	84.70	84.75	85.65	84.35	91.25

Basement: Add $14.10 per square foot of basement area.
Base Price includes: roof drainage, plumbing fixtures, alarm systems

Motel, 2-3 story (cost per SFFA)

Story height: 9 feet
Additional features: stairs, service area, sprinklers, 2 passenger elevators

Square foot floor area	Wood joists block walls		Precast concrete		Wood frame	
	Exterior wall cover					
	Decorative or concrete blk	Stucco on concrete blk	Decorative or concrete blk	Stucco on concrete blk	Wood siding	Brick veneer
25,000	$ 112.15	$ 111.70	$ 119.05	$ 119.30	$ 110.30	$ 113.90
37,000	109.35	109.00	116.35	116.55	107.65	110.95
49,000	105.65	105.15	112.60	112.75	104.15	106.65
61,000	104.60	104.15	111.55	111.75	105.65	105.65
73,000	104.00	103.50	110.95	111.10	104.90	104.90
81,000	103.65	103.15	110.60	110.75	104.50	104.50
88,000	103.40	102.90	110.30	110.50	104.25	104.25
96,000	103.15	102.65	110.10	110.25	104.05	104.05
104,000 +	102.55	102.05	109.50	109.65	103.35	103.35

Basement: Add $18.45 per square foot of basement area.
Additional elevators (2 stops):
1500# capacity + $42,555 3500# capacity + $47,555
2500# capacity + $43,735 Additional stops: Add $3,725 each

Adjusted age table

Age considering physical condition	*Adjusted age	Age considering physical condition	*Adjusted age
1-2	3	17-18	27
3-4	6	19-20	30
7-8	12	23-24	36
9-10	15	25-26	39
11-12	18	27-*28	42
13-14	21	29-30	45
15-16	24		

Use REL Table on Page 40.

Quality

	+50	338%	C		100%
	+25	281%		-5	95%
	+10	248%		±10	90%
AA		225%		+5	86%
	+40	210%	D		82%
	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
A		150%	E		50%
	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
B		122%		-40	30%
	-5	116%		-50	25%
	±10	110%			
	+5	105%			

Commercial Section
Motel — Hotel Schedules

Hotel, 4-7 story (cost per SFFA)

Story height: 10 feet
Additional features: stairs, service area and kitchen, sprinkler and hose system, intercoms, 4 passenger elevators

Square foot floor area	Steel frame			Reinforced concrete frame		
	Exterior curtain walls					
	Brick and block	Glass and/ or metal	Precast concrete panels	Brick and block	Glass and/ or metal	Precast concrete panels
35,000	$ 115.75	$ 110.80	$ 119.15	$ 119.00	$ 114.20	$ 123.30
55,000	108.80	104.75	111.55	112.05	108.20	115.60
75,000	105.80	102.10	108.30	109.05	105.55	112.30
95,000	103.20	99.95	105.40	106.45	103.40	109.25
115,000	101.95	98.90	104.10	105.25	102.30	108.00
135,000	101.10	98.15	103.10	104.35	101.60	106.95
155,000	99.20	96.65	100.90	102.40	100.05	104.70
175,000	98.55	96.10	100.25	101.80	99.50	104.05
195,000 +	98.15	95.75	99.75	101.40	99.20	103.60

Basement: Add $20.85 per square foot of basement area.
Additional elevators (4 stops):
3500# capacity + $105,250
5000# capacity + $109,660 Additional stops: Add $5,560 each

Hotel, 8-24 story (cost per SFFA)

Story height: 10 feet
Additional features: stairs, service area and kitchen, sprinkler and hose system, intercoms, 6 passenger elevators

Square foot floor area	Steel frame			Reinforced concrete frame		
	Exterior curtain walls					
	Brick and block	Brick on steel stud	Glass and/ or metal	Brick and block	Brick on steel stud	Glass and/ or metal
140,000	98.15	96.20	108.10	99.80	98.30	110.15
243,000	93.35	91.75	101.60	95.00	93.80	103.65
346,000	89.90	88.60	97.80	91.55	90.60	99.80
450,000	88.50	87.30	96.15	90.15	89.35	98.15
552,000	87.75	86.65	95.15	89.45	88.70	97.20
655,000	87.25	86.15	94.50	88.95	88.20	96.60
760,000	86.90	85.80	94.00	88.50	87.80	96.05
860,000	85.65	84.65	92.95	87.25	86.75	95.00
965,000 +	85.35	84.45	92.60	87.00	86.50	94.65

Basement: Add $21.55 per square foot of basement area.
Additional elevators (8 stops):
3000# capacity + $212,660
5000# capacity + $218,540 Additional stops: Add $5,560 each

Swimming pools

Note: Price per square foot water surface includes ladders, filter, and related equipment.

Pool/SFSA	$ 47.05 - 57.80
Whirlpool/each	6,185.00 - 16,610.00
Enclosures/SFFA	20.90 - 36.10

Paving

Parking lots	Per SF
6” stone	$0.55
heavy traffic asphalt	1.85
6” concrete	2.85

Commercial Section
Fast-food Restaurant & Convenience Store Schedules

Fast-food restaurants

Square foot floor area	Wood frame	Steel frame			Load-bearing walls	
	Exterior wall cover					
	Wood siding	Brick veneer	Concrete blk w/stucco	Face brick w/blk back-up	Concrete blk w/stucco	Face brick w/blk back-up
2,000	$ 128.15	$ 136.50	$ 133.05	$ 140.75	$ 130.90	$ 137.80
2,800	120.25	127.60	124.65	131.10	122.35	128.20
3,500	116.30	123.15	120.50	126.30	118.10	123.40
4,000	114.25	120.90	118.40	123.85	116.00	121.00
5,000	111.50	117.75	115.40	120.55	113.00	117.65
5,800	108.85	114.65	112.55	117.15	110.10	114.25
6,500	107.60	113.25	111.25	115.65	108.80	112.75
7,200	105.90	111.25	109.40	113.50	106.90	110.60
8,000	105.00	110.20	108.45	112.35	105.90	109.45

Convenience stores

Square foot floor area	Steel frame			Wood frame		LB walls
	Exterior wall cover					
	Stucco on concrete blk	Metal sandwich plate	Precast concrete	Wood siding	Face brick veneer	Stucco on concrete blk
1,000	$ 104.45	$ 111.20	$ 116.35	$ 89.45	$ 108.80	$ 102.25
2,000	91.45	96.35	99.65	80.10	80.10	89.25
3,000	85.55	89.60	92.15	75.90	75.90	83.35
4,000	82.10	85.65	87.70	73.40	73.40	79.85
6,000	77.90	80.95	82.40	70.40	70.40	75.75
8,000	75.45	78.10	79.30	68.70	68.70	73.25
10,000	73.75	76.20	77.10	67.45	67.45	71.55
12,000	72.50	74.75	75.50	66.60	66.60	70.30
15,000	71.15	73.20	73.75	65.60	65.60	68.95

Add for		
Booths - straight	$ 200.90	per LF
"L" or "U" shaped	197.00	per LF
Drive-up window	7,315.00	each
Walk-in refrigerators		
6' x 6'	118.60	per SF
10' x 10'	93.10	per SF
12' x 14'	82.30	per SF
12' x 20'	72.50	per SF
Check-out counter - single bell	2,230.00	each
Storage shelving	8.80	per SF

Adjusted age table

Age considering physical condition	Adjusted age*
1-2	3
3-4	6
5-6	9
7-8	12
9-10	15
11-12	18
13-14	21
15-16	24
17-18	27
19-20	30
21-22	33
23-24	36
25-26	39
over	40

*Carry adjusted age to column 1 of Commercial REL Table.

Paving

Parking lots	Per SF
6" stone	$0.55
heavy traffic asphalt	1.85
6" concrete	2.85

Commercial Section
Gasoline Service Station Schedules

Service stations with or without bays (cost per SFFA)

Story height: 10 feet
Additional features: sales area, office area, storage area, 2 toilet rooms and fixtures.

	Wood frame		Wood truss	Steel joists		Steel frame
	Exterior wall cover					
Square foot floor area	Wood siding	Aluminum siding	Brick w/block	Brick w/block	Tile on concrete	Sandwich panel
600	$ 136.05	$ 133.75	$ 157.60	$ 151.70	$ 163.10	$ 137.25
800	125.50	123.45	144.90	138.95	149.40	126.05
1,000	114.55	112.85	130.90	125.00	133.95	114.20
1,200	109.50	107.90	124.55	118.70	127.10	108.80
1,400	105.65	104.15	119.75	113.85	121.80	104.60
1,600	101.50	100.10	114.40	108.50	115.90	100.10
1,800	98.80	97.50	111.05	105.10	112.20	97.20
2,000	96.70	95.45	108.35	102.40	109.20	94.95
2,200	94.90	93.75	106.10	100.15	105.80	93.00

This schedule gives a square foot price to be applied to each square foot of a building. In addition, basement, canopies, paving, *etc.,* must be computed separately. Also, this particular schedule is accompanied by an Adjusted age table based on a potential economic life of 25 years for use in conjunction with the Commercial REL Table.

Adjusted age table

Age considering physical condition	*Adjusted age
1-2	3
3-4	6
5-6	9
7-8	12
9-10	15
11-12	18
13-14	21
15-16	24
17-18	27
19-20	30
21-22	33
23-24	36
25-26	39
over	42

*Carry adjusted age to column 1 of Commercial REL Table.

Paving

	Per SF
Parking lots	
6” stone	$0.55
heavy traffic asphalt	1.85
6” concrete	2.85

Gasoline pumps (+)

Standard mechanical
- Single $3,360
- Twin (1 cab., 1 prod., 2 meters & nozzles) 4,965

Standard electronic
- Single 5,840
- Twin 7,885
- Six hose - double sided 15,335

Electronic remote control totalizer, per hose 1,505

Island offices

No plumbing, minimum electrical service

Area	Cost per SF
50	$221.95
75	174.35
100	146.90
125	128.50

Canopies (+) w/lights & supports (per SF)

Low	Average	Good	Excellent
$15.20	$19.30	$24.80	$31.55

Add 25% for round canopies
Add 10% for gable or ranch style

Commercial Section
Bank Schedules

During the past few years, small branch banks have become commonplace as commercial retail centers have moved from traditional downtown districts to suburban areas.

This schedule follows the same basic format as the Fast-Food Restaurant Schedule and should be used in the same manner.

An itemized list of components included and not included in the base cost is listed below.

Included in the base cost

1 Site preparation
2 Concrete footings and foundations
3 Reinforced concrete slab and base
4 Structural framing
5 Cast in concrete slab roof, insulation, and built-up composition
6 Exterior walls with 14' wall height, doors, and windows
7 Interior construction
- **a** Gypsum board on metal stud partitions
- **b** 50% vinyl wall covering and 50% paint
- **c** Interior surface of ext. wall (80%) is painted gypsum on furring
- **d** 50% good carpet and 50% vinyl tile
- **e** Suspended mineral fiber ceiling
- **f** Single leaf metal doors

8 One toilet fixture per 580 SF
9 Zoned hot and cold air — heating and cooling
10 Average flexible conduit electrical service
11 Special construction
- **a** 2-hour test, 32" vault door and frame
- **b** 24-hour automatic teller
- **c** Drive-up window

12 +15% general contractor's overhead and profit
13 +11% architect's fees

Not included in the base cost

1 Site value
2 All yard and outside improvements
3 Attached exterior improvements (*i.e.*, canopies, signs)
4 Basement
5 Sprinkler system

1 Story — 14' Wall height

Banks (cost per SFFA)

Square foot floor area	Steel frame			Reinforced concrete frame			Shape adj.		Height adj.
	Exterior wall cover								
	Brick w/block backup	Precast concrete panels	Stone w/block backup	Brick w/block backup	Precast concrete panels	Stone w/block backup	Perimeter	+ or - per 100' variance	+ or - per ft. variance
2,000	165.80	156.00	178.00	177.95	168.20	190.15	180'	31.65	3.05
2,700	155.50	147.15	165.90	167.70	159.30	178.10	208'	23.40	2.60
3,400	149.40	141.90	158.80	161.60	154.05	171.00	236'	18.60	2.35
4,100	144.25	137.45	152.70	156.40	149.65	164.90	256'	15.45	2.10
4,800	141.05	134.70	148.95	153.25	146.90	161.15	280'	13.20	1.95
5,500	138.50	132.55	146.00	150.70	144.75	158.20	303'	11.55	1.85
6,200	135.75	130.20	142.70	147.95	142.40	154.85	317'	10.25	1.70
6,900	134.05	128.70	140.70	146.20	140.90	152.85	337'	9.15	1.60
7,600	132.65	127.55	139.00	144.80	139.70	151.15	357'	8.30	1.55

Add $20.15 per square foot of basement floor area for an unfinished basement.

Windows	Cost	
Bulletproof teller 44" x 60"	$3,380	each
Bulletproof teller 60" x 48"	4,115	"
Drive-up window, drawer & micr. not incl. glass	7,315	"
Service, pass through steel 24" x 36"	2,305	"
Service, pass through steel 48" x 48"	2,965	"
Service, pass through steel 72" x 40"	4,190	"
Add for stainless steel frames	20%	
24-hour teller (automatic deposit, cash & memo)	$41,550	"
Door & frame, 3' x 6' 8" bullet resistant with vision panel	$4,290	"
Night depository	$8,515	"
Pneumatic tube system, 2-station	$23,910	"
Vault front, door & frame, 1-hour test, 32" x 78"	$3,530	each
Vault front, door & frame, 2-hour test, 32" door	4,190	"
Vault front, door & frame, 2-hour test, 40" door	4,605	"
Vault front, door & frame, 4-hour test, 32" door	4,290	"
Vault front, door & frame, 4-hour test, 40" door	5,120	"
Add for time lock movement	1,615	"
Closed circuit TV, one station camera & monitor	$1,350	each
Additional camera stations	735	"

Circular vault doors	
Thickness	Average cost
8"	$ 118,600
10"	127,100
12"	135,900
14"	145,600
16"	155,600

Adjusted age table

Age considering physical condition	*Adjusted age
1-2	3
3-4	6
5-6	9
7-8	12
9-10	15
11-12	18
13-14	21
15-16	24
17-18	27
19-20	30
21-22	33
23-24	36
25-26	39
over	40

*Carry adjusted age to column 1 of Commercial REL Table.

Bank

Property Record — Commercial — Industrial

Construction Specifications

Foundation

Sprd. Ftg.	✓	Pile	
Caisson		Other	

Wall Framing

	B	1	2	3	A
Wood					
Steel O/FP	✓	✓			
Reinf. Concrete					
Load Bearing					

Frame Bay - Bay Area **N/A** SF

Floors

Wood						
Steel O/FP						
Reinf. Concrete	✓	✓				

Frame: Wood (Steel) Conc.

Exterior Walls

Siding						
Masonry (Blk./Brk.)	✓	✓				
Steel						
Glass						

Finish

Unfinished	✓					
Finished Open						
Finished Divd.		✓				

Heat

Cent. Wm. Air	✓	✓				
Ht. Wt/Steam						
Unit Heaters						
None						

Air Conditioning

Central		✓				
Unit						
None						

Roofing

Composition	✓	Shingle	
Slate		Metal	

Frame: Wood (Steel) Conc.

Plumbing Type

1		2	8 fixtures
3		4	
	Sprinkler	1st floor only	

Use

Store		Office		Vacant B	✓
Apt.		WH		Abandoned	
Factory		Bank	✓		

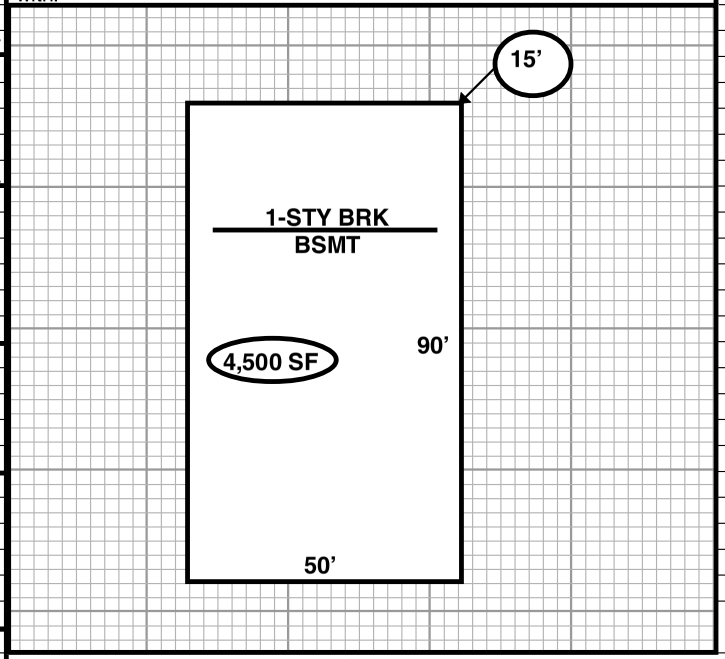
No. of Units
Avg. Unit Size
No. Rooms Per Unit

Data Bank

SF Ground Area	4,500
Eff. Perim LF	280
CF of Bldg.	108,000
SF Wall Area	6,720
Wall Ratio	16.07

Sty. Sched.

Prorated @ _____% with:



Description

Size ____ x Shape _____ x Weight _____

1st floor sprinkled @ $2.75

One-night depository
Vault door circular 10"
24" X 36" service pass
500 SF metal - average@$21.25
(use canopy schedule from service station)
2-pneumatic tube system@$23,325

S C M I Grade **C**

C&D **1.00** G **1.00** NH **1.00** A **1.00** = FAC **1.00**

Eff. Age	Eff. Age	CDU	Age
6	6	Average	6

***Plumbing is included in the SF price (8 fixt.)**
****Based on the adjusted age table found on the bank schedules**

Depreciation = **6%**

Computation

Flr. Price x Ht. Adj.	WH	
	9 Bsmt.	$ 20.15
$141.05 + $1.85	15 1st Floor	142.90
	2nd Floor	
	3rd Floor	
	Base Price	$ 163.05
	BPA	
	Adj. Base Price	
	Heat	
	A/C	
	Electrical Light	
	Sprinkler	3.00
	SF Price	$ 166.05
	SF	4,500
	Subtotal	$747,225
	Plumbing	
	Partitions	6,875
		127,100
	Front	2,305
	Canopy	9,650
	Dock	
		23,910
	Total	$917,065
	Replacement Cost New	$917,065
	REL	0.94
	Full Value	$862,041

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. Cost New	REL	Full Value

Listed by: **JLN**
Date: **1/02**

Total full value other buildings
Total full value all buildings

PRC-4 (R-1/00) (opposite PRC-3)

Commercial Section
Special Use Buildings Cost Guide

The following cost ranges are for specific use buildings. They are provided as a guide when estimating the RCN. They are not to be used as the sole source of the estimate. Use the cost ranges to

- check the RCN estimate derived from other schedules in this manual.
- check the reported project cost from a taxpayer.
- give a range estimate for a proposed project.
- check the replacement cost new estimate provided by a taxpayer.
- check the RCN estimate derived from other cost services.

Construction	Grade C cost range		
Auto service center (Per SFFA	$ 90.00	—	91.10
Auto show room (Per SFFA)	$ 68.05	—	72.90
Add for basement		21.50	
Bank building (Per SFFA)	152.70	—	156.40
Add for basement		20.15	
Bowling alley (Per SFFA)	68.25	—	74.35
Add for basement		19.85	
Car wash (Per SFFA)	102.60	—	181.90
Funeral home (Per SFFA)	94.20	—	104.30
Add for basement		18.95	
Parking garage (Per SFFA)	30.45	—	36.95
Greenhouses (Per SFFA)	24.00	—	29.40
Medical/dental office (Per SFFA)			
1-story	113.35	—	115.90
2-story	125.15	—	127.40
Add for unfinished basement		18.40	
Nursing home (Per SFFA)	101.30	—	105.85
Add for unfinished basement		19.10	
Movie theaters (Per SFFA)	99.50	—	107.10

Industrial Section
Instructions for Industrial Schedules

Industrial square foot schedule

The industrial square foot schedule was designed from the Component-in-place (CIP) schedules. This was accomplished by constructing hypothetical model buildings of a variety of wall types combined with a variety of structural frames. All of the model buildings were 150' x 300' with a 16' wall height on the first story and 12' wall heights on upper stories. The roof design was flat. In structural framed buildings, the frame bay sizes did not exceed 1,200 square feet.

The components included with all buildings at the same cost rate were

- site preparation and excavation
- concrete grade slab floor construction
- average interior construction
- footings and foundations
- exterior doors
- heating
- lighting and electrical
- minimal floor finish
- roof drains
- roughed-in plumbing service but no fixtures

To the above constant cost, several combinations of exterior wall construction, structural frame types, and roof structures were added. The square foot costs for each variation were analyzed to derive a typical square foot cost for buildings with either of three basic types of wall construction and one of five types of framing.

A single square foot price for a subject building is extracted from the schedule by correlating the story (1st, 2nd, or upper) and the framing type (load-bearing, load-bearing interior supports, wood post and beam, ordinary steel columns and beams, fireproof steel columns and beams, or concrete columns and beams), with the exterior wall treatment (brick or stone, block or concrete panel, steel panel, or comparable).

Note: Adjustments to the base price may be necessary for building shape, size, wall height, and construction weight. Additions and deductions for size, wall height, and construction weight variations are included at the bottom of the base price schedule. Other additions (plumbing fixtures, air conditioning, sprinkler systems, office enclosures, mezzanines, power wiring, extensive partitioning, basement construction, docks, and yard and outside improvements, *etc.*) to the base price may be necessary. Some of these items can be priced from the subsidiary schedules that follow the base price schedules. It may be necessary to refer to the CIP schedules in this manual to price other items.

Primary base price adjustments

1 **Wall height variation —** The amount of this adjustment is 1 percent per foot of wall height variation. The schedule includes a standard wall height of 16' for the 1st story and 12' for the upper stories. If a subject building's wall varies from these dimensions, make an adjustment to the initial floor base price for each story of the building and then write the amount on the PRC.

Example: 18' brick walls, ordinary steel framing

$ 40.20	1st floor base price
x 1.02	2% increase for 2' wall height variation
$ 41.00	adj. 1st floor base price

The following steps will be chain-multiplied to arrive at a base price adjustment factor.

2 **Adjustment for size —** It usually costs less (per unit) to build a larger area than a smaller one. Since the base price schedule is from a model building of 45,000 square feet and includes various components at a constant cost rate, it is sometimes necessary to adjust the base cost to account for building size. Various sizes and appropriate adjustment factors are shown on the base price adjustments table in the industrial cost schedules.

Example: Refer to the size adjustment table and find the range 65,001 - 80,000 SFGA. A building with 75,000 SFGA has a size adjustment factor of 0.90.

3 Shape adjustment — Make an adjustment for shape to account for area or perimeter ratio variations. It costs less to build a square box than a rectangular box of the same area and volume because the rectangular box will have a larger wall area. The building shape table is provided to adjust the base price for these variations for wall to floor area ratio. The process for shape adjustment follows.

a Multiply the length by the width of the subject property to determine the building's SFGA.

b Add the length of the building's exterior walls to calculate the perimeter of the subject building. To calculate an effective perimeter for party walls, an adjustment of 60 percent is necessary for the length of any party wall (common wall between two buildings).

c Divide the SFGA by the effective perimeter to find the wall ratio.

d Select the corresponding shape adjustment factor from the Industrial building shape adjustment table.

Example: Refer to the Industrial shape adjustment table and use wall ratio of 40 to find a shape adjustment factor of 1.03.

4 Construction weight adjustment — In framed buildings, frame bays (rectangular or square) are formed by the columns. The frame bays are usually of consistent size throughout the building. The larger the frame bay sizes, the heavier the construction, which results in greater expense. An adjustment for construction weight is given in the base price adjustments table. Select the appropriate factor using either the load-bearing construction or the structural frame with bays.

Example: For a steel-frame with structural frame bays, multiply the length (40') by the width (25') to find the square foot of bay area (1,000 SF). Refer to the base price adjustments schedule and select the structural frame with bays of 401 to 1,200 SF for a construction weight factor of 1.00.

Note: When multiple adjustments are necessary, adjust any variation in height before you write the floor price in the computation ladder (Step 1). Then, add each adjusted floor price to obtain a base price per SFGA for the entire building. Next, adjust the base price for size, shape, and construction weight by applying a base price adjustment (BPA) factor (Steps 2 through 4). Make this adjustment in the computation ladder space designated as "BPA." An example of a multiple adjustments is shown below.

Example

Step 1

$	40.20	1st floor base price
x	1.02	height adj. factor
$	41.00	1st floor adjusted price

Step 2 - Step 4

	0 .90	size adjustment
x	1.03	shape adjustment
x	1.00	construction weight adj.
	0.93	BPA factor

Step 5

$	41.00	1st floor adjusted base price
x	0.93	BPA factor
$	38.13	adjusted base price

Industrial Section
Industrial Square Foot Schedules

The cost figures shown are for one-story and multi-story industrial buildings. First story wall height is 16 ft. to eaves. Upper story wall height is 12 ft. In each cost category the price includes excavation, footings & foundation, floor construction and finish, framing, roof structure and cover, exterior wall construction, heating, electrical and lighting, average interior walls, doors, roof drains, and rough plumbing service.

Add for all other features such as plumbing fixtures, sprinklers, air conditioning, excessive interior walls, enclosures, *etc.*, from subsidiary schedules or from CIP schedules.

Adjustments for wall height, size, building shape, and construction weight are applicable to base prices selected from this schedule. Also a quality grade assignment and factor is necessary and applicable to the total cost estimate derived from the use of this schedule.

The base price is derived by correlating the framing type and story with the visible exterior wall treatment.

Industrial buildings (cost per SF)

Story	Wall height	Framing	Exterior wall cover		
			Brick, stone or equal	Block, concrete panel or equal	Steel panel or equal
First story	16’	Load bearing	37.25	35.95	—
		L/B interior supports	36.60	35.30	—
		Wood post & beam	37.00	35.70	32.20
		Ord. steel cols. & beams	40.20	38.90	35.40
		F/P steel cols. & beams	42.80	41.50	38.00
		Concrete cols. & beams	42.15	40.85	37.35
Second story	12’	Load bearing	28.75	27.75	—
		L/B interior supports	28.75	27.75	—
		Wood post & beam	25.90	24.90	22.30
		Ord. steel cols. & beams	32.00	31.00	28.40
		F/P steel cols. & beams	41.00	40.05	37.40
		Concrete cols. & beams	37.05	36.05	33.45
Upper stories	12’	Stories 3 & 4	Use 105% of second story price		
		Stories 5 & 6	Use 110% of second story price		
		Over 6 stories	Estimate building cost from CIP schedules		

Base price adjustments

Story height	For story height variation, add or deduct per each foot 1%
Size	For buildings less than 20,000 SFGA, factor base price ..... 1.10 For buildings 20,001 to 35,000 SFGA, factor base price ..... 1.05 For buildings 35,001 to 55,000 SFGA, factor base price ..... 1.00 For buildings 55,001 to 65,000 SFGA, factor base price ..... 0.95 For buildings 65,001 to 80,000 SFGA, factor base price ..... 0.90 For buildings 80,001 to 100,000 SFGA, factor base prices ..... 0.85 For buildings over 100,000 SFGA, estimate building cost from CIP schedules.
Construction weight	Load bearing construction, factor base price ..... 1.00 L/B with interior supports, factor base price ..... 1.00 Structural frame with bays under 400 SF, factor base price ..... 0.98 Structural frame with bays of 401 to 1,200 SF, factor base price ..... 1.00 Structural frame with bays of 1,201 to 2,000 SF, factor base price ..... 1.02 Structural frame with bays over 2,000 SF, factor base price 1.04

Industrial building shape adjustment table

Wall Ratio = Cubic feet ÷ SFWA

Wall ratio	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Adjustment factor	1.31	1.28	1.26	1.23	1.21	1.20	1.18	1.17	1.15	1.14	1.13
Wall ratio	**26**	**27**	**28**	**29**	**30**	**32**	**34**	**36**	**38**	**40**	**45**
Adjustment factor	1.12	1.11	1.10	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.01
Wall ratio	**50**	**55**	**60**	**65**	**70**	**75**	**80**	**85**	**90**	**95**	**100**
Adjustment factor	1.00	0.99	0.98	0.97	0.96	0.96	0.95	0.95	0.94	0.94	0.93

Industrial Section
Industrial Subsidiary Schedules

Fire escapes

Counterbalanced	
Two story building	$ 4,600.00
Each additional flight	2,600.00
Balcony and stairs	
Steel balcony - 2' wide (per LF)	$ 165.00
3' wide (per LF)	325.00
Steel stairs - 3' wide (per flight)	4,225.00
Ladders	**Per VLF**
Steel, bolted to building	
w/cage	$ 125.00
w/o cage	65.00
Aluminum, bolted to building	
w/cage	155.00
w/o cage	90.00

Fire sprinkler system

Sprinkler costs include all interior heads, supply lines, and accessories. Wet system piping contains water at all times; dry pipe system contains air under pressure and is used in those unheated areas where freezing might be encountered. For dry pipe systems, add 10% to the wet system prices.

Exterior pipe, alarm systems, and fire pumps should be added to the costs below.

Area serviced	Cost per SFSA	
	Ordinary hazard*	Extra hazard**
Through 1,000 SF	$ 4.50	$ 5.95
1,001 - 2,000	4.85	5.85
2,001 - 5,000	3.00	4.45
5,001 - 10,000	2.70	4.20
over 10,000	2.65	4.25

*Ordinary hazard occupancies include stores, commercial, offices, garages, factories, warehouses, *etc.*

**Extra hazard occupancies include aircraft hangers, chemical works, linoleum manufacturing, paint shops and varnish works, solvent extracting, *etc.*

Quality

	+50	338%	C		100%
	+25	281%		-5	95%
	+10	248%		±10	90%
AA		225%		+5	86%
	+40	210%	D		82%
	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
A		150%	E		50%
	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
B		122%		-40	30%
	-5	116%		-50	25%
	±10	110%			
	+5	105%			

Retaining walls

Prices are for exposed face area and includes concrete footing 3' below grade.

Type		Per LF
Concrete block	6' high	$ 91.70
	8'	121.50
	10'	142.00
Reinforced concrete	6' high	144.25
	8'	182.25
	10'	220.20

Doors (industrial)

Type	Per SFDA
Steel roll-up	$ 18.15
Fiberglass overhead	12.60
Wood panel overhead	13.65
Steel	
rolling	18.10
overhead	10.80
vertical lift electric	102.10
Add for electric operation	
roll-up door	8.05
overhead	6.00
rolling	8.10
Walk-in	**Per SFDA**
Metal clad	
ind. swinging single leaf	$ 61.25
ind. swinging double leaf	59.20
office swinging single leaf	31.00
Fire doors	**Per SFDA**
rolling	$ 38.70
swinging	420.70
Add for electric operation, each	1,565.00

Office enclosures

Approximate office size	Finish quality			
	Econ.	Avg.	Good	Excl.
Up to 2,500 SF				
Wood frame partitions	$ 13.65	$ 18.25	$ 24.35	$ 32.50
Masonry partitions	15.05	19.95	26.45	35.10
Over 2,500 SF	Build from CIP schedules			

Note: Most partitions and enclosures will fall into the good or avg. categories. Partitions or enclosures with extravagant, exclusive and/or super-adequate characteristics should be considered excl. Partitions and enclosures with limited amenities and sub-standard basic structures should be classified as econ.

Industrial Section
Industrial Subsidiary Schedules

Plumbing

The typical fixture cost is for sinks, water closets, tubs, water heaters, urinals, *etc.* The cost includes amounts for the fixture, water supply, waste, and vent lines. Exterior piping to the building is not included.

Typical fixtures

Residential Type 1	Commercial Type 2	Industrial Type 3	Specialty Type 4
$1,235	$3,210	$3,450	see below

Specialty fixtures

	Each
Drinking fountain	
floor	$ 2,085.00
wall	1,545.00
Electric water cooler	1,635.00
Laundry tub	
single	1,015.00
double	1,345.00
Sump pump	440.00
Janitor's sink	1,865.00
Emergency shower or face wash	1,095.00

Cast iron trough sinks		
4 faucet	48"	1,740
8 faucet	96"	2,920
Add for stainless steel		20%

	36"	54"
Circular wash sinks		
polished cement	$2,555	$2,920
terrazzo	2,655	3,030
enameled steel	2,920	3,270
stainless steel	3,145	3,610

	36"	54"
Semi-circular wash sinks		
polished cement	$2,230	$2,570
terrazzo	2,345	2,740
enameled steel	2,610	2,960
stainless steel	2,880	3,270

	Enameled steel	Stainless steel
Column showers		
circular (per shower head)	$ 415	$ 580
semi-circular (per shower head)	550	760

Single stall shower	
w/receptor & curtain hanger	$ 700
w/receptor & hinged door	995
Open showers up to 12 spray	
minimum	$ 1,570
maximum	2,300

Note: Above prices do not include partitions.

Mezzanines (cost per SFFA)

Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish component.

Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	$15.40	$19.75
Store, display (finished open)	25.20	35.55
storage	15.00	19.75
Office (finished divided)	33.75	48.25

For wood framed mezzanines use 65% of the steel costs.

Basement walls (including footings)

Wall const.	Thickness	Height	Per LF
Reinforced concrete	8"	8'	$ 147.85
		9'	172.30
		10'	196.75
		12'	221.20
	12"	8'	170.85
		9'	197.95
		10'	225.00
		12'	252.05
		16'	321.70
Concrete block	8"	8'	104.30
		9'	117.35
		10'	130.40
		12'	151.85
	12"	8'	134.95
		9'	150.70
		10'	166.45
		12'	193.60
		14'	215.80
		18'	260.20
Brick (solid)	8"	8'	206.00
		9'	231.75
		10'	257.50
		12'	304.35
	12"	8'	231.20
		9'	259.00
		10'	286.75
		12'	337.95
		14'	384.25
	16"	8'	347.35
		9'	389.60
		10'	431.85
		12'	511.70
		14'	586.95

Industrial Section
Industrial REL Table Instructions

The REL table is designed to be a guide to determine the loss in value due to physical, functional, and economic depreciation. The REL factor is dependent upon your judgement of condition, desirability, and utility of the subject's improvements.

Remember that

- the table is used only when local supportive data is non-existent. It cannot substitute for actual market data.
- age is a relative thing. A building with an actual age of 15 years may have an effective age of 3 years or 25 years based on physical condition alone. Considering desirability or utility can further reduce or increase the effective age estimate.
- actual age and effective age are the same when physical condition of the improvement is average.

The schedule attempts to relate loss in value due to condition, desirability, and utility (CDU). CDU represents depreciation as

Condition (C) = physical deterioration
Desirability (D) = economic obsolescence
Utility (U) = functional obsolescence

To use the Industrial REL table, segregate these basic depreciation components into two categories for consideration

- Condition (C) = age considering physical condition
- Desirability and Utility (D and U) = effective age

Analyze the two categories, then estimate the effective age that is correlated to an REL factor. This process uses the age/life method of depreciation with an assumed economic life of 45 years.

Using the REL table

To consider the condition of the improvement, inspect the physical condition and compare it to similar improvements of the same age. By making this comparison, you can estimate the effective age according to the improvement's condition. Actual age and effective age are the same when physical condition of the improvement is average. Conditions that substantially differ from the average result in effective ages less than or greater than actual age. Locate this age (actual age considering condition) in the far left-hand column of Schedule A and then correlate it with the appropriate desirability and utility rating column.

When you consider desirability, focus on any loss of value due to economic obsolescence. Economic obsolescence is usually caused by factors outside of the property. Some typical areas to consider are general location, highway access, railroad access, market for manufactured products, labor markets, utility sources, community relations, police and fire protection, competition, financing, taxes, educational and recreational facilities.

When you consider utility, focus on loss of value caused by functional obsolescence. This obsolescence may be in the form of inadequacy or super-adequacy. For instance, an industrial building with a 20 foot ceiling height may suffer a loss of value due to functional obsolescence if the market reflects the need for 15' ceilings. The value loss is caused by over-adequacy.

When you consider a rating for utility, consider the following frame bay size, availability of rail siding, number of stories, dock facilities, expansion space, transportation access and egress, parking facilities, ceiling height, adequacy of building fixtures (*e.g.,* lighting, heating, ventilation, plumbing), existing utilities or availability, office area, traffic patterns, and building size.

Average desirability and utility requires that the improvement have the features that are typical for a mercantile business to operate in the building. Lack of economic or functional features results in a less than average rating (*i.e.,* poor or unsound). Additional features that contribute economically or functionally to the improvement result in an above-average rating (*i.e.,* excellent or good) for desirability or utility.

After you assign a desirability and utility rating, correlate the effective age from Schedule A in column one with the appropriate column (*e.g.,* average, good) to reach an effective age that reflects the improvement's CDU. Locate this final estimate of effective age in Schedule B and correlate it with an estimate of REL of the improvement.

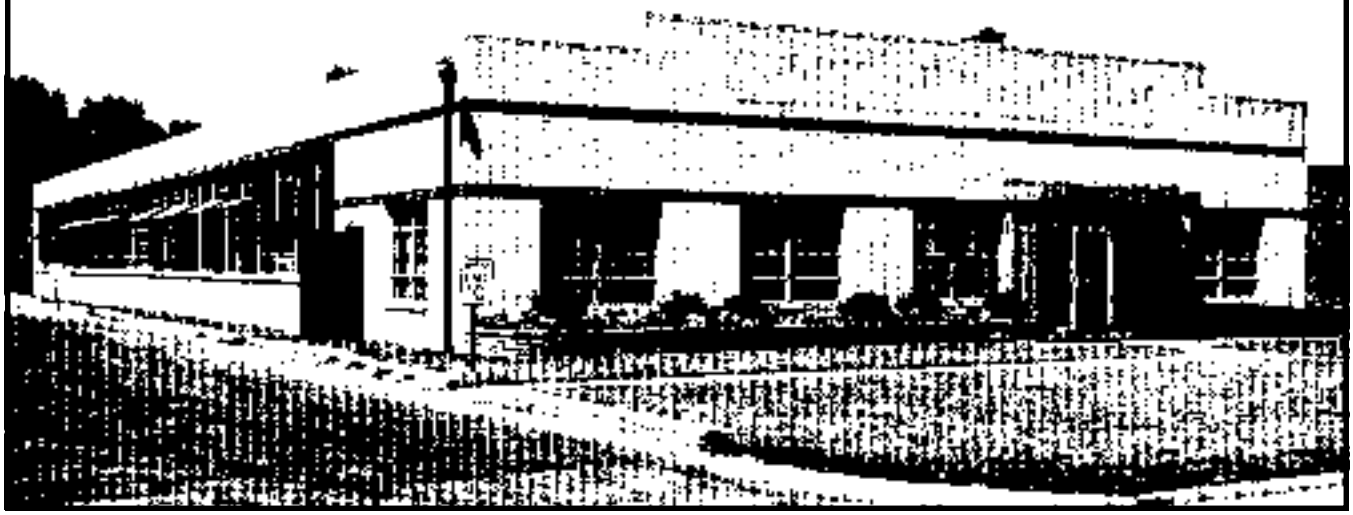
Industrial Section
Industrial REL Table

Schedule A						Schedule B	
Age* considering physical condition	Effective age considering desirability and utility					REL	
	E	G	A	P	U	Eff. age	REL
1	1	1	1	5	9	1	97.5
2	1	1	2	6	10	2	95
3	1	1	3	7	11	3	92.5
4	1	1	4	8	12	4	90
5	1	1	5	9	13	5	87.5
6	1	2	6	10	14	6	85
7	1	3	7	11	15	7	82.5
8	1	4	8	12	16	8	80
9	1	5	9	13	17	9	77.5
10	2	6	10	14	18	10	75
11	3	7	11	15	19	11	72.5
12	4	8	12	16	20	12	70
13	5	9	13	17	21	13	67.5
14	6	10	14	18	22	14	65
15	7	11	15	19	23	15	62.5
16	8	12	16	20	24	16	60
17	9	13	17	21	25	17	57.5
18	10	14	18	22	26	18	55
19	11	15	19	23	27	19	52.5
20	12	16	20	24	28	20	50
21	13	17	21	25	29	21	47.5
22	14	18	22	26	30	22	45
23	15	19	23	27	31	23	42.5
24	16	20	24	28	32	24	40
25	17	21	25	29	33	25	37.5
26	18	22	26	30	34	26	35
27	19	23	27	31	35	27	32.5
28	20	24	28	32	36	28	30
29	21	25	29	33	37	29	27.5
30	22	26	30	34	38	30	25
31	23	27	31	35	39	31	22.5
32	24	28	32	36	40	32	20
33	25	29	33	37	—	33	17.5
34	26	30	34	38	—	34	15
35	27	31	35	39	—	35	12.5
36	28	32	36	40	—	36	10
37	29	33	37	—	—	37	10
38	30	34	38	—	—	38	10
39	31	35	39	—	—	39	10
40	32	36	40	—	—	over 40	10
41	33	37	—	—	—		
42	34	38	—	—	—		
43	35	39	—	—	—		
44	36	40	—	—	—		
45	37	—	—	—	—		

*Actual age and effective age are the same when physical condition of improvement is average.

Industrial Section
Sample Appraisal — Industrial Building

Factory and office — grade C
One-story block and brick building



Foundation — concrete spread footings, masonry wall foundation

Frame — load-bearing

Walls — 16” block and brick, 448 LF

Floors — 6” concrete

Roof — Flat with steel bar joist, steel decking, and built-up composition roofing

Mechanical features

Electrical — Fluorescent fixtures; rigid conduit wiring

Plumbing — 5 water closets,3 lavatories, 1 urinal, and 1 water heater

Heat — Suspended space heaters

Other features

18’ x 62’ wood office enclosure with good quality finish

A sample PRC is on the following page.

Industrial Building

Property Record — Commercial — Industrial

Construction Specifications

Foundation			
Sprd. Ftg.	✓	Pile	
Caisson		Other	

Wall Framing	B	1	2	3	A
Wood					
Steel O/FP					
Reinf. Concrete					
Load Bearing		✓			

Frame Bay - Bay Area **N/A**

Floors					
Wood					
Steel O/FP					
Reinf. Concrete		✓			
Frame	Wood	Steel	Conc.		

Exterior Walls					
Siding					
Masonry (Blk./Brk.)		✓			
Steel					
Glass					

Finish					
Unfinished		✓			
Finished Open					
Finished Divd.		✓			

Heat					
Cent. Wm. Air					
Ht. Wt/Steam					
Unit Heaters		✓			
None					

Air Conditioning					
Central					
Unit					
None		✓			

Roofing				
Composition	✓	Shingle		
Slate		Metal		
Frame	Wood	(Steel)	Conc.	

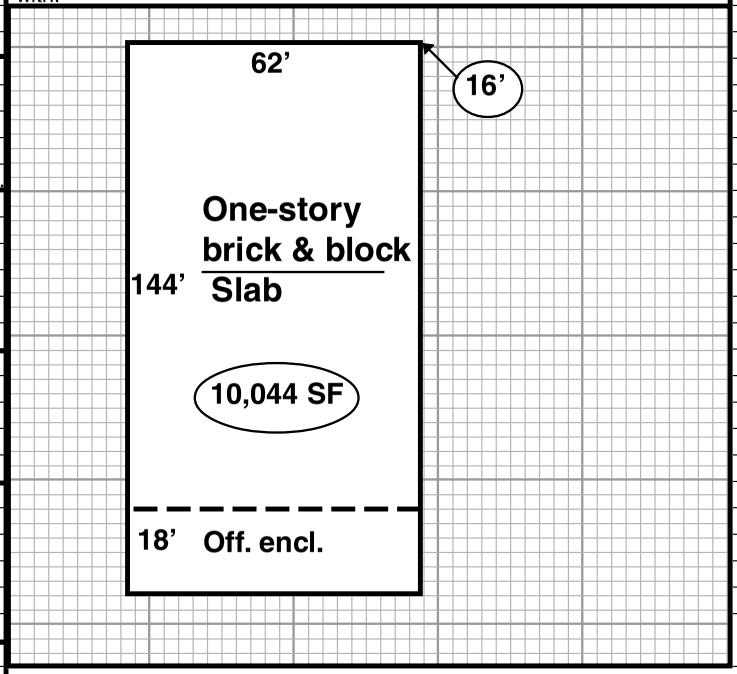
Plumbing Type

1		2	
3	**10 fixtures**	4	
	Sprinkler		

Use					
Store		Office		Vacant	
Apt.		WH		Abandoned	
Factory	✓				

No. of Units	
Avg. Unit Size	
No. Rooms Per Unit	

Prorated @ _____% with:



Data Bank	
SF Ground Area	10,044
Eff. Perim LF	448
CF of Bldg.	160,708
SF Wall Area	7,168
Wall Ratio	22.42
1 Sty Brk & blk Sched.	Ind. SF

Size 1.10 x Shape 1.17 x Weight 1.00

10 fixtures @ $3,450.00

18' x 62' good grade @ $24.35

S C M I Grade **C**

C&D **1.00** G **1.00** NH **1.00** A **1.00** = FAC **1.00**

Eff. Age	Eff. Age	CDU	Age
28	28	Avg./Avg.	28

Depreciation = **70%**

Description		Computation
Flr. Price x Ht. Adj.	WH	
	Bsmt.	
37.25 x 1.00	16' 1st Floor	$37.25
	2nd Floor	
	3rd Floor	
	Base Price	37.25
	BPA	x 1.29
	Adj. Base Price	48.05
	Heat	
	A/C	
	Electrical Light	
	Sprinkler	
	SF Price	48.05
	SF	10,044
	Subtotal	482,614
	Plumbing	34,500
	Office encl.	27,175
	Partitions	
	Front	
	Canopy	
	Dock	
	Total	$ 544,289
	Replacement Cost New	$ 544,289
	REL	0.30
	Full Value	$ 163,287

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. Cost New	REL	Full Value

Listed by: **JRT**

Date: **1/02**

Total full value other buildings

Total full value all buildings $ 163,287

Industrial Section
Pre-engineered Steel Building Shell

Schedule explanation

The minimal economic size of pre-engineered steel buildings is 3,000 SF and a typical eave height is 18-20 feet. In recent years, the use of these buildings has expanded from industrial/warehouse to include a wide variety of uses including mercantile and office. Because of this, the basic schedule is designed to price building shells only. Other construction features are to be priced separately from the CIP schedules. The term "building shell" (as used here) refers to the steel frame, including girts and purlins, a roof deck, and exterior wall skin of 26 gauge colored steel. A list of other items that may need pricing includes excavation, knee walls, fill and compaction, footings, foundation, floor interior construction, electrical and lighting, heating and cooling, plumbing, yard and outside improvements, *etc.* Some of these items may be priced from the subsidiary schedules that follow the base price schedules.

In cases where a subject building does not have the wall and/or roof cover described above, a deduction of $3.90 per SF of wall and/or roof area is made, then the existing wall and/or roof is priced using the appropriate CIP schedule.

Pre-engineered Steel Building Shell

Building type	Typical building widths	Eave height				
		10'	14'	16'	20'	24'
Rigid frame	30 — 40	5.95	6.35	6.70	7.25	7.80
	50 — 100	6.00	6.00	6.45	6.70	7.25
	110	—	6.35	6.45	6.45	7.10
	120	—	6.55	6.70	6.45	7.25
	130	—	6.65	7.00	6.70	7.35
Tapered beam	30	6.25	6.80	7.30	7.55	—
	40	5.90	6.20	6.55	7.05	—
	50 — 80	5.80	5.95	6.20	6.55	—
Column & beam 1 post at center point	80	—	5.40	5.75	6.00	6.45
	100	—	5.30	5.45	5.95	6.35
	120	—	5.15	5.35	5.55	6.05
Column & beam 2 posts at 1/3 points	120	—	5.00	5.20	5.55	6.05
	150	—	5.30	5.45	5.70	6.35
	180	—	5.60	5.60	5.95	6.45
Column & beam 3 posts at 1/4 points	160	—	4.95	5.35	5.70	6.05
	200	—	5.30	5.45	5.85	6.20
	240	—	5.60	5.70	5.95	6.45

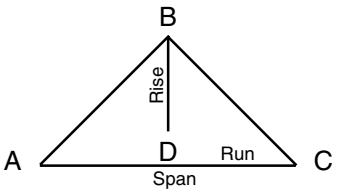
For insulated exterior wall cover, add $1.40/SFWA

For buildings with roof pitch of 4:12 or over add 6%

For buildings of less than 5,000 SF, add 5%

For buildings of over 20,000 SF, deduct 10%

How to calculate roof pitches



Roof pitch is computed from the ratio of the rise to the run and is described as a 4 in 12 pitch, a 5 in 12 pitch, etc. In this cross section, the steepness of distances AB and BC constitutes pitch. Distance (AC) extending from one eave to the other is the span. One-half this distance (AD or DC) is called the run. Distance (BD or DB) is called the rise. The first step is to determine the length of the run and the rise.

Example: known — 50' span (AC) with 12' rise (BD)

1 Convert rise to inches — 12' x 12" per foot = 144".

2 Divide inches of rise (144") by run in feet (25') — 144" ÷ 25' = 5.76 rise, or 6 in 12 pitch.

Industrial Section
Pre-engineered Steel Building Shell

Earthwork

Demolition (per CF of building)	$0.30
Site preparation (per SFGA)	0.10
Excavation (per CF earth removed)	0.10
Fill, compacted (per CF of fill)	0.30

Foundation walls (including footings)

Concrete*

Rating	Supported area above foundation	Per LF
Light	Up to 2 stories	$ 92.70
Medium	3 — 6 stories	101.20
Heavy	7 — 10 stories	109.20
X-heavy	Institutional	125.50

Concrete block*

Medium	1 story	$ 57.15
Heavy	Over 1 story	83.10

Strip footings only
(12" deep — without foundation walls)

Width	Per LF
	Reinforced
24"	$ 30.30
32"	34.85
40"	39.35
48"	66.35

*Prices based on 4' wall height — includes asphalt damp proofing.

Office enclosures

Approximate office size	Finish quality			
	Econ.	Avg.	Good	Excl.
Up to 2,500 SF				
Wood frame partitions	$ 13.65	$ 18.25	$ 24.35	$ 32.50
Masonry partitions	15.05	19.95	26.45	35.10
Over 2,500 SF	Build from CIP schedules			

Note: Most partitions and enclosures will fall into the good or avg. categories. Partitions or enclosures with extravagant, exclusive and/or super-adequate characteristics should be considered excl. Partitions and enclosures with limited amenities and sub-standard basic structures should be classified as econ.

Pre-fabricated shop offices

Pre-fabricated aluminum framed booths including doors, floors, lighting, HVAC, *etc.*

Approx. office size	Per SFFA
50 SF	$ 185.00
80 SF	150.00
100 SF	135.00

Heating — ventilation air conditioning (HVAC) (per SFFA)

Prices for HVAC are provided below according to finish or use of the building (or area within the building). The prices were developed on the basis of heating, ventilation, or air conditioning cubic area and then converted to SF costs for the convenience of the assessor. Because of this, it may be necessary to adjust the costs for height. The base height is 14' and 3% of the cost indicated should be added or deducted for each foot of height variation in your subject building.

Type	Comm.	Ind.	Ofc.
Electric baseboard	$2.55	$2.55	$3.85
Electric wall/floor heaters	1.15	1.10	1.55
Heat pump, heat and cool	5.50	5.95	7.90
Forced warm air, central system	2.70	2.70	4.25
Ventilation only w/ducts	0.80	0.85	1.20
Hot water baseboard	4.75	4.70	6.75
radiant floor	4.75	4.65	6.65
Steam radiators			
w/boiler	4.20	4.35	6.30
w/o boiler	3.45	3.60	5.35
Suspended unit heaters			
gas fired	1.40	1.45	1.60
w/steam or hot water coil	1.40	1.40	—
Zoned hot & cold water	11.45	11.80	15.90
Zoned hot & cold air	6.80	7.00	10.15
A/C central forced air	4.75	4.70	5.45
package floor units	3.20	3.20	3.85

Suspended unit heaters (cost each)

In those instances where a building has a very limited number of individual heating units, the above square foot cost might not be applicable. For a more reasonable cost estimate each individual heater should be priced separately. The costs are provided below and need not be adjusted for story height.

BTU rated capacity	Cost each	BTU rated capacity	Cost each
35,000	$ 1,030.00	150,000	$1,575.00
75,000	1,230.00	250,000	2,150.00
100,000	1,315.00	400,000	3,510.00

Electric heaters (cost each)

Infra-red ceiling or wall
1 kw: $315 2 kw: $420 3 kw: $535

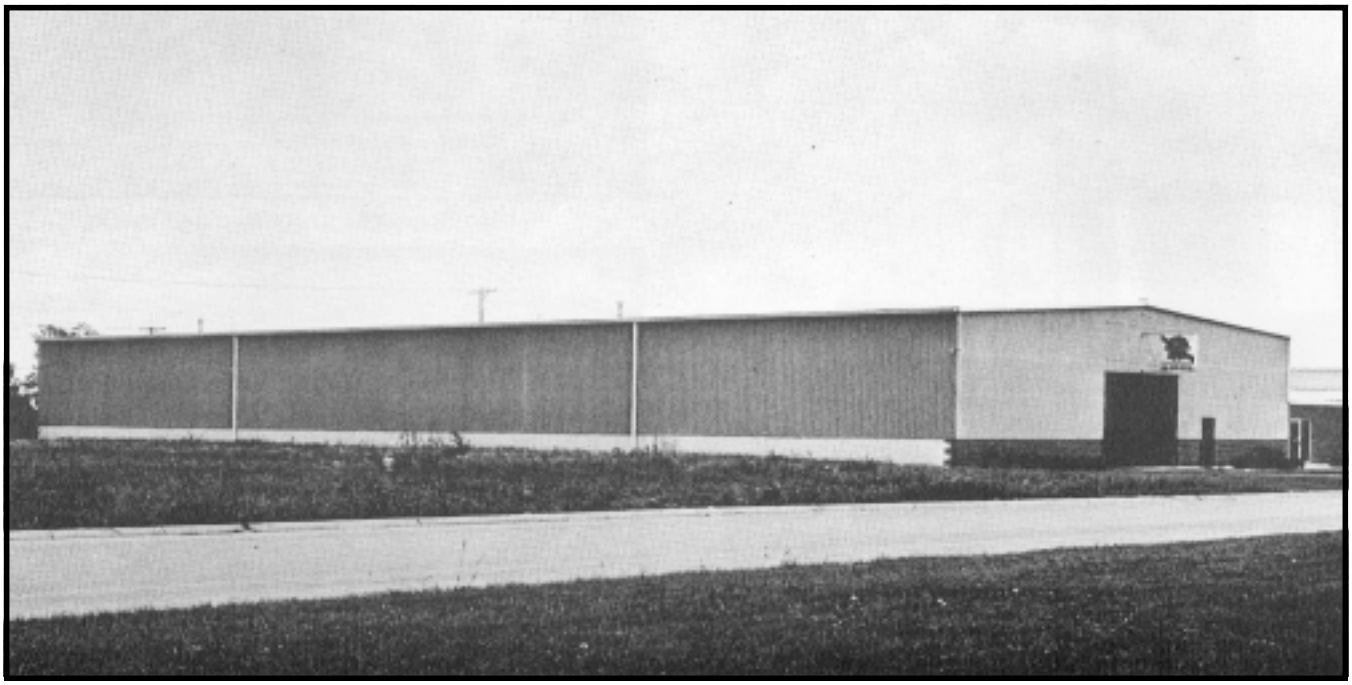
Infra-red modular baseboard or wall units
1 kw: $280 3 kw: $470 5 kw: $545

Ventilators

Roof power driven	Cost each	Roof gravity type	Cost each
12"	$ 505.00	12"	$ 270.00
18"	705.00	24"	495.00
24"	970.00	30"	605.00
30"	1,360.00	36"	725.00
36"	1,910.00	48"	940.00
42"	2,950.00		
48"	3,615.00		

For wall mounted power ventilators, deduct 10% from cost of roof power drive ventilators.

Industrial Section
Sample Appraisal — Pre-engineered Building Shell



Warehouse — grade C
One-story Pre-engineered Steel Building, 80’ X 200’

Foundation — concrete spread footings and concrete wall (light rating)

Frame — steel rigid frame (five 40’ increments)

Walls — enameled corrugated steel, 16’ height, on
8” x 4’ height concrete knee wall, batt insulation has been added to the exterior wall

Floor — 6” concrete slab

Roof — corrugated enameled steel and insulation over purlins

Mechanical features
Electric — scant lighting and electrical in rigid conduit
Plumbing — Three type 3 plumbing fixtures
Heat — adequate number of gas-fired suspended space heaters

Other features
80’ x 4” face brick trim
Two 12’ x 14’ steel panel overhead doors with electric operators;
Two 3’ x 7’ metal doors
350 SF office enclosure with C grade finish (wood-frame partitions)

A sample PRC is on the following page.

Industrial Section
Sample Appraisal — Pre-engineered Building Shell

Building Record — Component-in-Place

General Construction Specifications

Foundation

Sprd. Ftg.	✓	Pile	
Caisson		Other	

Framing

	B	1	2	3	A
Wood					
Steel O/FP	rigid frame				
Reinf. Conc.					
Load Bearing					

Floors

Wood				
Steel O/FP				
Reinf. Conc.		✓		
Frame	Wood	Steel	Conc.	

Walls

Wood				
Msy. Blk./Brk.				
Steel		✓		
Glass				
Concrete		✓		

Finish

Unfinished		✓				
Finished Open						
Finished Divd.						

Heat

Cent. Warm Air						
Hot Water/Steam						
Unit Heaters		✓				
None						

Air Conditioning

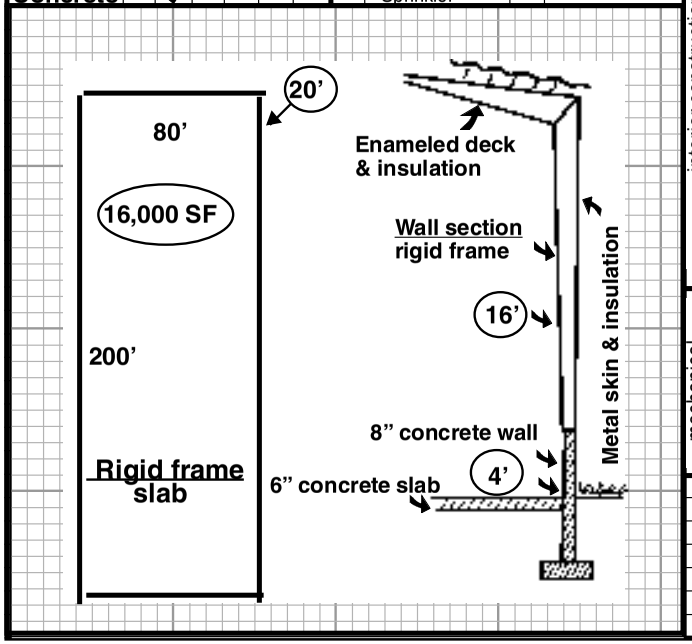
Central						
Unit						
None		✓				

Roofing

Composition		Shingle	
Slate		Metal	✓
Frame	Wood	Steel	Conc.

Plumbing Type

1		2	
3	3 fixtures	4	
	Sprinkler		



	Component	Field Description	Cost
primary components	site preparation	Earthwork 16,000 SF @ $0.10	$ 1,600
	excavation		
	footings	Spd. ftgs./10" conc. lt. rating to 2 stories 560 LF @ $92.70	51,912
	foundation		
	frame Bldg.	Rigid frame 16' 16,000@ $ 6.45	103,200
	shell		
	roof structure		
	roof cover		
	exterior walls	8" Conc. (formed) 4' x 560' @ $17.40	38,976
	exterior walls		
	Doors (2)	12' x 14' Stl. OH $10.80 + $6.00 elec. op @ $168 SFDA	5,645
	Doors (2)	3' x 7' Metal single walk-in @ $61.25/SFDA	2,573
	floor constr.	6" Concrete slab 16,000 SF @ $3.30	52,800
	floor constr.		
	Brick trim	4' x 80' — 4" Face brick @ $10.75	3,440
interior construction			
	partition		
	partition		
	Ofc. encl.	350 SF Average grade finish @ $18.25	6,388
	wall finish		
	wall finish		
	Insulation	Roof — batts or roll 16,000 SF @ $1.15	18,400
	Insulation	Wall — batts or roll 16' x 560'@ $0.60	5,376
	ceilings		
	ceilings		
	floor finish		
	floor finish		
mechanical	electrical	Scant R/C ind. 16,000 SF @ $ 3.05	48,800
	plumbing 3	Type 3 fixtures @ $3,450 each	10,350
	heating	Susp. unit heaters 16,000 SF @ ($1.45 x 1.18*)	27,376
	ventilation	*Base height 14' (20' - 14' = 6' @ 3% = 1.18 bldg. height 20')	
	air condition		
	sprinkler system		
	dock		

Data Bank		Use	
SF Ground Area	16,000	Store	
Eff. Perim LF	560	Factory	
CF of Bldg.	320,000	Office	
SF Wall Area	11,200	WH	✓
Wall Ratio	(28.57)		
	29		

S C M I | Grade C | Total $376,836

C 1.00 D 1.00 G 1.00 NH 1.00 A 1.00 =FAC 1.00

Eff. Age	Eff. Age	CDU	Age	Replacement Cost New
10	10	Avg/Avg	10	$376,836

Date: 1/02 REL 0.75

Full Value $282,627

PRC-5 (R-1/00)

IL-492-

Industrial Section
Sample Appraisal — Industrial Building

Factory and Office
One-story Brick and Concrete Block

Foundation — concrete spread footings and 14" concrete wall
Framing — ordinary steel with bay sizes of 24' x 20'; column height of 16'
Wall construction — curtain wall, 12" concrete block back-up with 4" face brick
Floors — 6" concrete with 656 SF of nylon carpet with pad and 1,344 SF of vinyl asbestos tile
Roof — steel deck and frame with built-up composition cover and insulation
Partitions (office enclosure) — 1,200 SF, 8" block painted on two sides; 1,800 SF, 2" x 4" 24" on center steel stud with ½" drywall painted on two sides
Ceilings — 2,000 SF mineral fiber tile in metal suspension system

Mechanical

Electric — Fluorescent fixtures throughout; average service with wiring in rigid conduit
Heating — manufacturing area has suspended gas-fired unit heaters; office area has a zoned hot/cold air system
Plumbing — eight typical fixtures in industrial area and six typical fixtures in office area

Other features

2,000 SF unfinished concrete framed mezzanine
Two 8' x 12' steel overhead dock doors, each with electric operator
Two 3' x 7' steel walk-in doors
8' x 8' aluminum frame glass front with brick
One 3' x 7' aluminum-framed glass door

A sample PRC is on the following page.

Industrial Section
Sample Appraisal — Industrial Building

Building Record — Component-in-Place

General Construction Specifications

Foundation

Sprd. Ftg.	✓	Pile	
Caisson		Other	

Framing

	B	1	2	3	A
Wood					
Steel O/FP		✓			
Reinf. Conc.					
Load Bearing					

Frame bay 24' x 20'

Floors

	Wood	Steel	Conc.
Wood			
Steel O/FP			
Reinf. Conc.	✓		

Walls

	Frame	Wood	Steel	Conc.
Wood				
Msy. Blk./Brk		✓		
Steel				
Glass				

Finish

Unfinished	✓	Plant
Finished Open		
Finished Divd.	✓	Office

Heat

Cent. Warm Air	✓	Office
Hot Water/Steam		
Unit Heaters	✓	Plant
None		

Air Conditioning

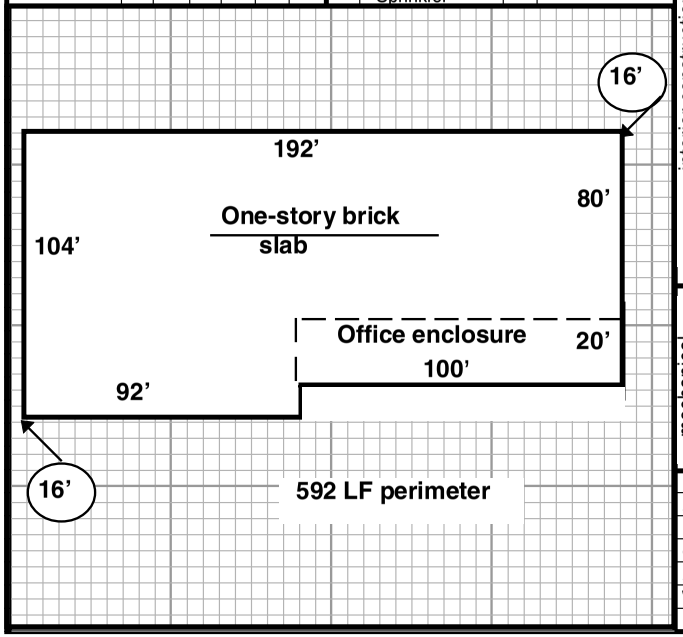
Central	✓	Office
Unit		
None	✓	Plant

Roofing

Composition	✓	Shingle	
Slate		Metal	
Frame	Wood	(Steel)	Conc.

Plumbing Type

1		2	6 fixtures
3	8 fixtures	4	
	Sprinkler		



	Component	Field Description	Cost
primary components	site preparation	Earthwork 19,568 SF @ $0.10	$ 1,957
	excavation		
	footings	Spread ftgs./14" concrete lt. rating to 2 stories 592 LF @ $92.70	54,878
	foundation		
	frame	Ordinary steel. 19,568 SF @ $5.00 x 1.10 (height adj. @ 5%/ft.)	107,624
	roof structure	Steel frame w/steel deck 19,568 SF @ $7.50	146,760
	roof cover	Built-up composition 19,568 SF@ $1.60	31,309
	Insulation	Roof - rigid insulation board 19,568 SF @ $1.50	29,352
	exterior walls	12" Brick w/block back-up curtain wall P-1S 9,472 SF @ $17.10	161,971
	exterior walls		
	Doors (2)	8' x 12' Steel sliding overhead w/electric operator @ $16.80/SFDA	3,226
	Doors (2)	3' x 7' Metal single walk-in @ $61.25/SFDA	2,573
	Glass/brick front	64SF @ $16.05/SFDA + 3' x 7' alum. frm door @ $1,100 each	2,127
	floor constr.		
	floor constr.	6" Concrete slab 19,568 SF @ $3.30	64,574
interior construction			
	partition	8" Concrete block P-2S 120' x 10' @ ($7.50 + $1.40) = $8.90	10,680
	partition	2"x 4" - 16" oc steel stud w/½" drywall	
		P-2S 9' x 200' @ ($1.95 + $2.50 + $1.30) = $5.75	10,350
	wall finish		
	wall finish		
	ceilings	Mineral fiber tile w/suspension 2,000 SF @ ($1.25 + $1.40) = $2.65	5,300
	ceilings		
	Mezz.	Concrete floor unfin. w/stairs & safety railing	
		2,000 SF @ $19.75 /SFFA	39,500
	floor finish	Nylon carpet w/pad - economy grade - 656 SF @ $2.70	1,771
	floor finish	Vinyl tile - 1,344 SF @ $2.10	2,822
	Electrical	Avg. service rigid conduit ind. - 17,568 SF @ $5.20	91,354
mechanical	electrical	Avg. service rigid conduit ofc. - 2,000 @ $12.10	24,200
	plumbing	Six Type 2 @ $3,210 each, Eight type 3 @ $3,450 each	46,860
	heating	Ind., 17,568 SF @ ($1.45 x 1.06-2 ft. hgt. adj. @ 3%/ft)	26,879
	ventilation		
	air condition	Office 2,000 SF @ $10.15 (zoned hot/cold air)	20,300
	sprinkler system		
	dock		

Data Bank		Use	
SF Ground Area	19,568	Store	
Eff. Perim LF	592	Factory	✓
CF of Bldg.	313,088	Office	
SF Wall Area	9,472	WH	
Wall Ratio	33.05		

S C M I | Grade C | Total $ 886,367

C 1.00 D 1.00 G 1.00 NH 1.00 A 1.00 =FAC 1.00

Eff. Age	Eff. Age	CDU	Age	Replacement Cost New
14	14	Avg/Avg	14	$ 886,367

Date: 1/00 | REL 0.65 | Full Value $576,139

PRC-5 (R-1/00)

IL-492-1153

Memo

Ownership & Mailing Address	Township	Tax Code	Area	Sect.	Block	Parcel	Unit
McCall's Patterns Stupendville, IL 77777			03	30	333	003	0080
	Division		NH Code		Card No. ____ of ____		Condo. Comm.
			Property Class		Land Use		Zoning
Property Address							

1 Earthwork: site preparation for building area 19,568 SF
2 Plant eng. in for: ftgs. 2 ½' x 1' spread concrete & foundation 14" concrete walls 32" to top of ftg.
3 Frame ordinary steel w/f column & beams bays typ. size 24' x 20'
4 Roof structure: steel bar joist & corr. steel deck
5 Built-up composition cover & insulation 1 ½"
6 Exterior curtain walls: 8" concrete block with 4" face brick
7 Doors 2: 8' x 12' steel overhead with electric opener; 2 - 3' x 7' steel walk-in
8 Aluminum frame front w/door
9 Floor construction: 5" concrete slab (est.)
10 North & west exterior office partitions: 8" concrete block P-2S 120' x 10' = 1,200 SF
11 Interior office partitions: steel studs ½" drywall & P-2S 200' LF x 9' = 1,800 SF
12 Office ceiling suspended tile mineral fiber
13 Mezzanine: 2,000 SF unfinished concrete framed
14 Office carpet: 2 private offices - nylon carpet & pad 656 SF total
15 Balance of office: floored w/vinyl asbestos tile 1, 344 SF
16 Office & plant displays, adequate lighting & service outlets - all in rigid conduit
17 Office: 2-stool, 2-lav., 1 urinal, 1-w.h.; Plant: 4-stool, 2-lav., 1-urinal, 1-w.h.
18 Office: zoned hot/cold air system; Plant: suspended space heaters

PRC-9 (R-6/99)

Industrial Section
Index of CIP Schedules

Industrial Section
CIP Schedules

Earthwork

Demolition (per CF of building)	$0.30
Site preparation (per SFGA)	0.10
Excavation (per CF earth removed)	0.10
Fill, compacted (per CF of fill)	0.30

Foundation walls (including footings)

Concrete*

Rating	Supported area above foundation	Per LF
Light	Up to 2 stories	$ 92.70
Medium	3 — 6 stories	101.20
Heavy	7 — 10 stories	109.20
X-heavy	Institutional	125.50

Concrete block*

Medium	1 story	$ 57.15
Heavy	Over 1 story	83.10

Strip footings only
(12” deep — without foundation walls)

Width	Per LF
	Reinforced
24”	$ 30.30
32”	34.85
40”	39.35
48”	66.35

*Prices based on 4’ wall height — includes asphalt damp proofing.

Basement walls (including footings)

Wall const.	Thickness	Height	Per LF
Reinforced concrete	8”	8’	$ 147.85
		9’	172.30
		10’	196.75
		12’	221.20
	12”	8’	170.85
		9’	197.95
		10’	225.00
		12’	252.05
		16’	321.70
Concrete block	8”	8’	104.30
		9’	117.35
		10’	130.40
		12’	151.85
	12”	8’	134.95
		9’	150.70
		10’	166.45
		12’	193.60
		14’	215.80
		18’	260.20
Brick (solid)	8”	8’	206.00
		9’	231.75
		10’	257.50
		12’	304.35
	12”	8’	231.20
		9’	259.00
		10’	286.75
		12’	337.95
		14’	384.25
	16”	8’	347.35
		9’	389.60
		10’	431.85
		12’	511.70
		14’	586.95

Piling (cost per LF of piling)

Diameter or Size	Wood untreated	Wood creosote	Pre-cast concrete	Concrete in steel pipe	Concrete in drilled hole	Steel H-column
8”	—	—	—	$30.20	—	$27.70
10”	$11.90	$15.95	$24.25	36.50	—	36.50
12”	15.30	20.00	30.35	42.65	$24.20	45.90
14”	19.15	24.60	36.70	—	—	55.95
16”	23.65	29.60	43.30	54.75	28.95	—
18”	—	—	50.10	66.00	—	—
24”	—	—	72.15	89.55	43.30	—
36”	—	—	—	—	77.70	—
48”	—	—	—	—	140.05	—
Average setup cost	$11,975	$11,975	$18,495	$19,310	—	$12,705

Example:
104 - 10” x 35’ H-column piles (104 x 35’ x $36.50) = ... $132,860
Plus average setup cost ..... $ 12,705
Total cost of pilings $145,565

Industrial Section
CIP Schedules

Structural framing (cost per SFFA)

Structural framing costs are provided below by correlation of an approximate frame bay area and the framing construction type. The derived costs are to be applied to all areas of a building that are structurally framed. Cost does not include truss or roof structure.

Base prices are for 14' story height, add or deduct 5% for each foot of column height variation. This adjustment is to be made before entering the price in the computation ladder.

Construction material	Frame bay area			
	Through 400 SF	401 SF to 1,200 SF	1,201 SF to 2,000 SF	Over 2,000 SF
Wood post and beam	$ 3.15	$ 3.45	$ 3.75	$ 4.05
Ordinary steel	4.55	5.00	5.50	5.95
Fireproof steel	11.55	12.70	13.85	15.05
Concrete column and beam	10.95	12.05	13.15	14.25
L/B w/interior supports	1.25	1.40	1.50	1.65

Roof construction

Structures and decks

Structure	Deck	Per SFRA
Wood structure	Wood	$3.45
	Corrugated or ribbed metal	5.05
Steel structure	Wood	4.25
	Corrugated or Ribbed metal	5.10
	Steel cellular	7.50
	Gypsum plank	4.70
	Formed concrete	9.30
	Pre-cast concrete	8.10
	Poured concrete or gypsum on steel deck	6.55
Concrete structure	Formed concrete	8.45
	Pre-cast concrete Joist & deck	7.40

For monitor or sawtooth roof add 40% to above costs.

Trusses (cost each truss)

Span	Steel		Wood	
	Light*	Heavy*	Light*	Heavy*
20'	—	—	$ 840	$ 1,070
30'	$2,170	$3,210	—	—
40'	2,920	4,280	2,020	2,720
60'	4,480	6,450	3,350	4,710
80'	6,020	8,680	4,800	6,970
100'	7,550	10,850	6,360	9,340
120'	—	13,070	8,040	11,970
140'	—	15,240	9,800	14,750
160'	—	17,440	—	—

*Light trusses are those carrying roof loads only. Heavy trusses are those carrying additional load of hoists or cranes.

The above trusses are for heavy industrial use buildings. When computing a lighter industrial or commercial use building that has wood truss roof construction use the table below.

Wood	Per SFFA
Light duty	$2.10
Heavy duty	2.65

Roof cover

Type	Per SF
Aluminum	$ 3.60
corrugated or ribbed shingles	3.50
Asbestos cement (transite)	
corrugated	5.00
shingles	3.55
Built-up comp.	1.60
Add for gravel	0.25
Clay tile	7.00
Composition shingles	1.85
Concrete tile	4.20
Copper-flat or standing seam	10.00
Fiberglass-corrugated or sheet	1.70
Lead	9.25
Roll comp.	0.90
Slate	6.85
Steel	
galvanized, corrugated, or ribbed	3.45
porcelain enamel	2.60
Synthetic rubber membrane	3.45
Wood	
shingles	2.85
shakes	3.05

Roof insulation (per SF insulation)

Insulation type	Per SFIA
Batts or roll insulation	$ 1.15
Rigid insulation board	1.50
Sprayed foam on deck 1"	2.20
2"	3.80

Gutter and downspouts

Construction materials	Per LF
Aluminum	$ 5.80
Copper	13.85
Galvanized metal	6.05

Industrial Section
CIP Schedules

Exterior wall coverings

This schedule starts with the wood or metal studs to which the cost of sheathing, insulation, *etc.*, must be added. For build-up of the interior of the wall, see the interior wall finishes schedule to complete the wall cost.

		Per SFWA
Framing		
wood studs		
2 x 4 -	12" oc	$ 1.90
	16"	1.50
	24"	1.10
2 x 6 -	12" oc	2.55
	16"	2.00
	24"	1.50
4 x 4 -	24" oc	2.55
	36"	1.95
	48"	1.65
steel studs		
2 x 4 -	16" oc	1.95
2 x 6 -	16" oc	2.30
Sheathing		
asphalt composition		1.00
fiberboard		0.95
gypsum board		1.30
plywood		1.30
wood boards		1.65
Insulation		
aluminum foil, paper backing		0.40
batts or roll		0.60
polystyrene		1.05
loose fill in stud walls		1.25
Exterior facing		
aluminum siding, corrugated		3.60
enameled		3.20
transite		3.45
metal sandwich panels		11.05
fiberglass		1.60
galvanized steel, corrugated		3.35
flat enameled steel		3.80
hardboard, masonite		2.25
Masonry veneers		
face brick common		10.75
used brick		10.25
cast stone, ornamental		22.65
ashlar stone		25.65
granite		37.15
limestone		31.25
marble		44.25
slate		29.20
Stucco		
on wire mesh		3.40
on metal lath		3.65
on masonry		2.75
Wood shakes, shingles		2.85
plywood panels		3.55
board and batten		3.65

Special finishes: For these items, depending upon the backing, a cost for furring may be required.

Concrete block	
screen	$ 8.65
split-face	9.45
ceramic tile	11.95
terra cotta	25.00
structural glass (vitrolite)	20.40
glass block	34.25
Additions for furring	
wood	0.85
masonry	1.00
Paint	
on masonry	0.90
on stucco	1.00
on wood	1.00

Exterior wall construction

Normally wall costs are priced for the total wall area when openings for doors, windows, *etc.,* are only a small percentage of the total. The price of doors, windows, *etc.,* is then added. When the openings represent over 20% of the total wall area, they should be deducted from the wall area before pricing the wall. For walls over 25 feet in height, add 1% for each foot.

Masonry load-bearing walls		**Per SFWA**
Concrete block	6"	$ 13.40
	8"	14.40
	12"	16.50
Brick, common	8"	19.40
	12"	23.70
	16"	28.00
Brick, block backup	8"	17.30
	12"	19.40
Clay tile	6"	14.35
	10"	16.80
Concrete formed	6"	16.25
	8"	17.40
	12"	19.85
Add for pilasters		1.00

Wood or steel framed load-bearing walls	
Wall cost includes studs	**Per SFWA**
Aluminum siding	$ 11.60
Wood shingles	11.70
Wood siding	11.10
Cement fiber asbestos siding	11.15
Brick veneer	16.65
Stone veneer	25.80
Stucco	11.50
Add for sheathing	0.80
Add for insulation	0.60

Industrial Section
CIP Schedules

Curtain (non-bearing) walls

Curtain walls (or panel walls) are exterior walls that enclose a building but do not support upper floors or roof construction. The price given is for the curtain wall only and includes no costs for structural framing that should be priced from the appropriate framing schedule.

Type		Per SFWA
Concrete tilt-up panels	4”	$ 10.95
	6”	11.70
	8”	12.60
	10”	13.60
Brick, block backup	8”	15.25
	12”	17.10
Brick, solid common	8”	17.10
	12”	21.00
Add for face brick		2.15
Concrete block	6”	11.85
	8”	12.70
Add for int. core insulation		0.50
Concrete formed	6”	14.30
	8”	15.35
	12”	17.60
Clay tile	6”	12.50
	10”	14.70
Concrete and glass panels		21.15
Metal and glass panels		23.20
Stainless steel and glass		34.25
Marble or stone panels		32.15
Glass block		32.45

Doors (industrial)

Type	Per SFDA
Steel roll-up	$ 18.15
Fiberglass overhead	12.60
Wood panel overhead	13.65
Steel	
rolling	18.10
overhead	10.80
vertical lift electric	102.10
Add for electric operation	
roll-up door	8.05
overhead	6.00
rolling	8.10
Walk-in	**Per SFDA**
Metal clad	
ind. swinging single leaf	$ 61.25
ind. swinging double leaf	59.20
office swinging single leaf	31.00
Fire doors	**Per SFDA**
rolling	$ 38.70
swinging	42.70
Add for electric operation, each	1,565.00

Windows

Type frame		Per SF window area
Steel sash, fixed, industrial		$ 14.20
	vented, industrial	17.20
Aluminum sash, awning		18.45
	casement	15.65
	sliding	10.85
	jalousie	17.50
Add for	1/4” wire glass	11.30
	1/4” plate glass	3.20
	double glazed	5.10
	solar glass	12.50

Store fronts

Type	*Per SF display area
Wood framed glass & trim with	
wood siding	$ 9.95
brick	11.40
ceramic	11.85
marble or granite	18.05
Steel framed glass & aluminum trim with	
brick	16.05
ceramic	16.50
marble or granite	22.70
Steel framed glass & stainless steel or bronze trim with	
brick	23.80
ceramic	24.20
marble or granite	30.40

*In calculating the total display area include surface area of all glass, sign, and bulkhead areas, including entrance way, islands, *etc.*

Additions to basic store fronts

Display platforms (per SF)	$ 5.55
Display ceiling (per SF)	3.40
Display back (per SF)	5.90
Entrance doors	
Revolving door, each	28,500.00
Hinged aluminum & glass, each	1,100.00
Hinged bronze or stainless, each	2,350.00
Sliding panel, aluminum & glass (per SF)	22.60
Add for bronze or stainless steel	25%
Add for automatic door opener (per door)	4,200.00
Security gates	
Scissor type folding gate painted steel, each	815.00
14 roll-up grille, alum. manual, each	
4’ high x 4’ long	1,720.00
4’ high x 6’ long	1,785.00
4’ high x 8’ long	2,110.00
4’ high x 12’ long	2,385.00
4’ high x 16’ long	3,135.00
6’ high x 4’ long	1,815.00
6’ high x 6’ long	1,875.00
6’ high x 8’ long	2,170.00
6’ high x 12’ long	2,735.00
6’ high x 16’ long	3,545.00
Marquees (per SF)	
Plain, steel framed	24.20
Ornamental, steel framed	31.20
Plain, wood framed	22.60
Wood or stucco, wood framed	19.75
Illuminated plastic, single face	72.30

Industrial Section
CIP Schedules

Interior partitions

Construction type		Per SFWA
Wood stud wall frame		
2 x 4 -	12" oc	$ 1.90
	16"	1.50
	24"	1.10
2 x 6 -	12" oc	2.55
	16"	2.00
	24"	1.50
Steel stud wall frame		
2 x 4 -	24" oc	1.95
2 x 6 -	24" oc	2.30
Masonry construction cost		**Per SFWA**
Concrete block	4"	$ 5.90
	6"	6.75
	8"	7.50
	10"	8.45
	12"	10.30
Clay tile	4"	9.00
	6"	9.45
	8"	11.60
	10"	15.65
	12"	18.60
Common brick*	8"	20.25
	12"	29.30

*For each additional 4" of thickness add $9.05/SFWA

Cubicle partitions

These are trackless, moveable shop partitions. The panels are semi-acoustical and at least 1 5/8" thick.

Construction type	Per SFWA
Enameled panels, flush	$ 15.85
Vinyl covered, flush	14.60
Wood and composition	11.80
— For less than 8' wall height	deduct 10%
— Do not deduct for door openings, add for each hollow metal door	$ 1,285.00
hardwood door	1,325.00

Accordion or folding partitions

Type	Per SF
Wood — low acoustical	$ $23.40
Wood — acoustical, vinyl faced	55.95
Formica or hardwood finish	29.15

Floors

Basement & grade slabs	Per SFFA
Concrete, including prepared base, reinforced 4"	$ 2.70
6"	3.30
8"	4.05
Asphalt, including prepared base, 2"	2.90
Structural floors (above grade)	**Per SFFA**
Steel joists, corrugated deck & concrete	$ 11.40
cellular deck & concrete	13.50
concrete slab	13.10
precast plank	11.20
wood deck	7.70
steel grating	26.75
Precast concrete joists & slab	10.10
Elevated concrete slab	11.65
Wood joist & deck	6.70
Pan or waffle (formed concrete)	10.55
Add for insulation	0.80
Add for fire proofing	1.40

Office partitions

Grade	Finished divided Per SFFA*	Finished open Per SFFA**
Economy	$22.75	$16.30
Average	26.80	19.15
Good	30.80	22.05
Excellent	34.85	24.90

Note: Base story height 8' - add or deduct 4% per foot of each foot of wall height variation.

* Finished divided costs include suspended ceiling with grid, average lighting and electrical service, wood framed perimeter and partitions with painted drywall, office doors, and average carpet.

** Except for partitions, finished open costs include the same items as finished divided costs.

Office enclosures

Approximate office size	Finish quality			
	Econ.	Avg.	Good	Excl.
Up to 2,500 SF				
Wood frame partitions	$ 13.65	$ 18.25	$ 24.35	$ 32.50
Masonry partitions	15.05	19.95	26.45	35.10
Over 2,500 SF	Build from CIP schedules			

Note: Most partitions and enclosures will fall into the good or avg. categories. Partitions or enclosures with extravagant, exclusive and/or super-adequate characteristics should be considered excl. Partitions and enclosures with limited amenities and sub-standard basic structures should be classified as econ.

Industrial Section
CIP Schedules

Pre-fabricated shop offices

Pre-fabricated aluminum framed booths including doors, floors, lighting, HVAC, *etc.*

Approx. office size	Per SFFA
50 SF	$ 185.00
80 SF	150.00
100 SF	135.00

Woven wire partitions

Wall panels	$ 165.00
Ceiling panels	200.00
Sliding door - 3' wide x 7' high	515.00
Sliding door - 6' wide x 7' high	635.00

Toilet partitions

	Each		Each
Marble	$1,390	Stainless steel	$1,420
Painted metal	610	Handicap additions	330
Plastic laminate	930		

Urinal screens

Marble	$ 780	Stainless steel	$ 700
Painted metal	490	Plastic laminate	460

Stairs (per tread)

Concrete, reinforced on ground	$ 135.00
on steel frame	200.00
Steel grate with steel frame	265.00
Wood	90.00
Spiral, ornamental cast iron	290.00
industrial steel	340.00
For stair landings	
concrete free standing	16.45/SF
on ground	7.50/SF
For 1 1/2" round steel railing	50.25/LF

Mezzanines (cost per SFFA)

Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish component.

Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	$15.40	$19.75
Store, display (finished open)	25.20	35.55
storage	15.00	19.75
Office (finished divided)	33.75	48.25

For wood framed mezzanines use 65% of the steel costs.

Interior wall finishes

Construction type	Per SFWA
Drywall, taped & sanded, 1 side	$ 1.25
Plaster	
on masonry	2.55
on and including lath	3.65
Paint	
on masonry	0.70
on plaster, drywall, wood	0.65
Ceramic tile	6.85
Wood paneling	
minimum	4.80
maximum	8.00
Wallpaper,	
average	0.95
good	1.50
excellent	2.85
Specialities	
Acrylic glazed coatings	1.50
Epoxy coatings	2.35
Vinyl sheet plastic	1.70
Copper sheet	7.30
Cork tile or sheet	4.95
Marble veneer - up to 3/4"	45.80
Granite veneer - up to 2"	70.90
Limestone veneer - up to 2"	33.25
Furring	
on wood	1.05
on block or brick	1.15
on concrete	1.95

Ceilings

Construction type	Per SFCA
Acoustical tile	
aluminum, perforated	$ 4.95
mineral fiber	1.25
Drywall	
finished	1.50
Add for	
painted	0.60
textured spray	0.55
Plaster on lath,	
plain	4.55
acoustical	5.60
Plywood panel	
softwood	4.10
hardwood	9.90
Luminous plastic panel	3.35
Eggcrate plastic panel	2.75
Add for	
suspension system	1.40
furring	1.60
insulation	0.85

Industrial Section
CIP Schedules

Floor finish

Type	Per SFFA
Carpet and pad	
economy grade	$ 2.70
good grade	3.30
excellent grade	4.90
Composition	
epoxy, troweled	8.90
epoxy w/ chips	7.15
terrazzo	13.60
acid-proof	11.55
Concrete toppings	
cement troweled, 1/2”	1.40
cement troweled, 1”	1.90
Add for coloring	1.10
Add for hardener & sealer	1.35
Resilient	
vinyl or asphalt tile	2.10
vinyl sheet	5.80
rubber tile or sheet	10.05
cork tile	5.85
synthetic turf	8.75
Brick, stone & tile	
brick, common in	
mortar-acid-proof	13.95
decoration pattern - add	20%
ceramic or quarry tile	11.05
marble	20.85
terrazzo	10.80
slate	9.55
flagstone	15.05
Wood	
block, end grain	7.35
hardwood	7.65
softwood	4.80
parquet blocks, pre-finished	22.35
Add for sleepers, 24” oc	
1” x 2”	1.00
2” x 4”	0.65
2” x 6”	0.70
Computer floor, raised	
metal on plywood	11.55
aluminum panels	34.75
w/vinyl covering - add	7.05
w/high pressure laminate - add	4.70
w/carpet cover - add	6.95
Paint	
on masonry & porous surface	0.70

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Electrical and lighting (cost per SFSA)

Cost includes electrical panel, wiring, and average grade lighting fixtures & devices all in place. The price does not include special wiring such as alarm or signal systems.

Type service	Comm.	Ind.	Ofc.
Scant service			
flexible conduit	$ 5.05	$ 2.55	$ 6.85
rigid conduit	6.00	3.05	8.25
Average service			
flexible conduit	7.30	4.40	9.85
rigid conduit	8.75	5.20	12.10
Abundant service			
flexible conduit	10.55	7.50	14.10
rigid conduit	12.65	8.85	17.75
Unfinished areas			
flexible conduit	2.05	1.65	2.40
rigid conduit	2.45	2.05	2.85
Power wiring		7.45	

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Cost by use

Listed below are typical average electrical system costs according to certain occupancies. The unit price is to be applied to floor area of electrical service.

Use type	Per SFSA	Use type	Per SFSA
Banks	$ 13.85	OFC bldgs.	
Bowling alleys	6.10	low quality	$ 8.30
Dept. stores	10.00	high quality	11.05
Discount stores	3.90	Retail stores	5.30
Garages		Restaurants	
service	5.00	low quality	9.15
storage	2.85	high quality	15.85
parking	3.25	Showrooms	8.30
Manufacturing	7.35	Warehouses	1.80

Cabinets — counters

Type	Per LF
Base with doors (w/o counter top)	
hardwood	$ 121.45
enameled steel	121.45
painted wood	99.50
add for drawer unit	50%
Wall	
hardwood	90.25
enameled steel	92.55
painted wood	78.65
Tall lab storage cabinets	185.10
Counter tops	
plastic	51.50
ceramic	76.95
stone	166.60
stainless steel	104.10

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Industrial Section
CIP Schedules

Plumbing

The typical fixture cost is for sinks, water closets, tubs, water heaters, urinals, *etc.* The cost includes amounts for the fixture, water supply, waste, and vent lines. Exterior piping to the building is not included.

Typical fixtures

Residential Type 1	Commercial Type 2	Industrial Type 3	Specialty Type 4
$1,235	$3,210	$3,450	see below

Specialty fixtures

	Each
Drinking fountain	
floor	$ 2,085.00
wall	1,545.00
Electric water cooler	1,635.00
Laundry tub	
single	1,015.00
double	1,345.00
Sump pump	440.00
Janitor's sink	1,865.00
Emergency shower or face wash	1,095.00
Cast iron trough sinks	
4 faucet 48"	1,740.00
8 faucet 96"	2,970.00
Add for stainless steel	20%

	36"	54"
Circular wash sinks		
polished cement	$2,555.00	$2,920.00
terrazzo	2,655.00	3,030.00
enameled steel	2,920.00	3,270.00
stainless steel	3,145.00	3,610.00

	36"	54"
Semi-circular wash sinks		
polished cement	$2,230.00	$2,570.00
terrazzo	2,345.00	2,740.00
enameled steel	2,610.00	2,960.00
stainless steel	2,880.00	3,270.00

	Enameled steel	Stainless steel
Column showers		
circular (per shower head)	$ 415.00	$ 580.00
semi-circular (per shower head)	550.00	760.00
Single stall shower		
w/receptor & curtain hanger	$ 700.00	
w/receptor & hinged door	995.00	
Open showers up to 12 spray		
minimum	$ 1,570.00	
maximum	2,300.00	

Note: Above prices do not include partitions.

Heating — ventilation air conditioning (HVAC) (per SFFA)

Prices for HVAC are provided below according to finish or use of the building (or area within the building). The prices were developed on the basis of heating, ventilation, or air conditioning cubic area and then converted to SF costs for the convenience of the assessor. Because of this, it may be necessary to adjust the costs for height. The base height is 14' and 3% of the cost indicated should be added or deducted for each foot of height variation in your subject building.

Type	Comm.	Ind.	Ofc.
Electric baseboard	$2.55	$2.55	$3.85
Electric wall/floor heaters	1.15	1.10	1.55
Heat pump, heat and cool	5.50	5.95	7.90
Forced warm air, central system	2.70	2.70	4.25
Ventilation only w/ducts	0.80	0.85	1.20
Hot water baseboard	4.75	4.70	6.75
radiant floor	4.75	4.65	6.65
Steam radiators			
w/boiler	4.20	4.35	6.30
w/o boiler	3.45	3.60	5.35
Suspended unit heaters			
gas fired	1.40	1.45	1.60
w/steam or hot water coil	1.40	1.40	—
Zoned hot & cold water	11.45	11.80	15.90
Zoned hot & cold air	6.80	7.00	10.15
A/C central forced air	4.75	4.70	5.45
package floor units	3.20	3.20	3.85

Suspended unit heaters (cost each)

In those instances where a building has a very limited number of individual heating units, the above square foot cost might not be applicable. For a more reasonable cost estimate each individual heater should be priced separately. The costs are provided below and need not be adjusted for story height.

BTU rated capacity	Cost each	BTU rated capacity	Cost each
35,000	$ 1,030.00	150,000	$1,575.00
75,000	1,230.00	250,000	2,150.00
100,000	1,315.00	400,000	3,510.00

Electric heaters (cost each)

Infra-red ceiling or wall
1 kw: $315 2 kw: $420 3 kw: $535

Infra-red modular baseboard or wall units
1 kw: $280 3 kw: $470 5 kw: $545

Ventilators

Roof power driven	Cost each	Roof gravity type	Cost each
12"	$ 505.00	12"	$ 270.00
18"	705.00	24"	495.00
24"	970.00	30"	605.00
30"	1,360.00	36"	725.00
36"	1,910.00	48"	940.00
42"	2,950.00		
48"	3,615.00		

For wall mounted power ventilators, deduct 10% from cost of roof power drive ventilators.

Industrial Section
CIP Schedules

Fire protection equipment

Hose house	Each
Metal	$ 1,065.00
Hose house equipment	
100 LF industrial fire hose	
1½" diameter	235.00
2½" diameter	435.00
Hose racks	
swinging w/125'	385.00
1½" hose	
Alarm systems	
4 zone w/control panel	1,715.00
8 zone w/control panel	2,875.00
12 zone w/control panel	3,915.00
Remote annunciator	
8 zone lamp	510.00
12 zone lamp	780.00
16 zone lamp	845.00

Fire pumps

Including controls and accessories (not including piping).

GPM	Electric	Diesel
500	$19,400.00	$60,600.00
750	24,100.00	65,700.00
1,000	28,600.00	69,300.00
1,500	35,900.00	75,200.00
2,000	42,400.00	79,400.00
2,500	48,300.00	83,100.00

Pump houses

Includes concrete floor, wall & roof construction, pump pits, lighting, water connection, and doors.

Type construction		Per SF
Corrugated metal	wood frame	$ 51.00
	steel frame	52.05
Concrete block	load bearing	74.80

Add for space heater from HVAC schedule 32

Add for underground pipe from schedule 69

Fire escapes

Counterbalanced	
Two story building	$ 4,600.00
Each additional flight	2,600.00
Balcony and stairs	
Steel balcony - 2' wide (per LF)	$ 165.00
3' wide (per LF)	325.00
Steel stairs - 3' wide (per flight)	4,225.00
Ladders	**Per VLF**
Steel, bolted to building	
w/cage	$ 125.00
w/o cage	65.00
Aluminum, bolted to building	
w/cage	155.00
w/o cage	90.00

Fire sprinkler system

Sprinkler costs include all interior heads, supply lines, and accessories. Wet system piping contains water at all times; dry pipe system contains air under pressure and is used in those unheated areas where freezing might be encountered. For dry pipe systems, add 10% to the wet system prices.

Exterior pipe, alarm systems, and fire pumps should be added to the costs below.

Area serviced	Cost per SFSA	
	Ordinary hazard*	Extra hazard**
Through 1,000 SF	$ 4.50	$ 5.95
1,001 - 2,000	4.85	5.85
2,001 - 5,000	3.00	4.45
5,001 - 10,000	2.70	4.20
over 10,000	2.65	4.25

*Ordinary hazard occupancies include stores, commercial, offices, garages, factories, warehouses, *etc.*

**Extra hazard occupancies include aircraft hangers, chemical works, linoleum manufacturing, paint shops and varnish works, solvent extracting, *etc.*

Underground fuel storage tanks

Gallons cap.	Fiberglass	Steel
550	$ 4,200.00	$ 3,200.00
1,000	5,200.00	4,200.00
2,000	6,600.00	5,400.00
4,000	8,400.00	7,100.00
6,000	11,100.00	9,600.00
10,000	14,800.00	13,100.00
12,000	17,100.00	14,800.00
15,000	20,800.00	18,000.00
20,000	27,200.00	23,400.00
30,000	40,200.00	34,400.00

Price includes excavation, setting in place, and all backfill.

Industrial Section
CIP Schedules

Escalators (cost per flight)

Story height	Stair width 32”	Stair width 48”
10’	$ 104,900.00	$ 119,100.00
12’	113,400.00	122,700.00
14’	116,700.00	127,200.00
18’	122,700.00	135,600.00
22’	129,900.00	145,100.00
25’	135,600.00	151,700.00

Add $960.00 per foot of rise per unit for glass panel sides.

Vertical lifts

Type	Cost
Dumbwaiter - 500#*	$ 29,900.00
Manlift**	13,500.00

* Add $3,000 for each stop over two.
Deduct 50% for manual operation.
** Add $3,200 per stop over two.

Dock gates
Hinged — diamond pattern — scissor type

	Width	6’ High
Single	5’	$ 440.00
	6’	475.00
	8’	580.00
Double	8’	815.00
	10’	850.00
	12’	1,045.00
	14’	1,115.00

Additions

Add for	aluminum gates	125%
	stainless steel gates	150%
	bronze gates	250%
Door seals vinyl covered (per LF)		$ 44.20
Expandable truck & RR shelter (each)		2,525.00
Rubber dock bumpers		
12” high x 14” long (each)		120.00
	24” long (each)	140.00
	36” long (each)	160.00

Retaining walls

Prices are for exposed face area and includes concrete footing 3’ below grade.

Type		Per LF
Concrete block	6’ high	$ 91.70
	8’	121.50
	10’	142.00
Reinforced concrete	6’ high	144.25
	8’	182.25
	10’	220.20

Loading ramps and wells

Type	Per SF
Truck ramp - concrete, 0’ to 4’ rise	$ 27.55
Truck well - concrete, 0’ to 4’ deep	25.10
Truck or RR well, grade level, 4’ high concrete side walls	17.90
Deduct for asphalt floor	3.25
Add for handrails (per LF)	50.25

Dock levelers

Deck size	Capacity (lbs.)	Cost each
6’ x 8’ fixed	5,000	$12,200.00
6’ x 8’ hinged	20,000	6,400.00
7’ x 8’ hinged	20,000	6,000.00
6’ x 8’ hydraulic	20,000	10,300.00
7’ x 8’ hydraulic	20,000	11,000.00

Dock canopies

Type	Per SF
Simple wood or steel without lighting	$ 7.15
Good structure with lighting, soffit	10.60
Add (per SF) for sprinkler system	
up to 1,000	4.50
2,000	4.85
5,000	3.00
10,000	2.70
over 10,000	2.65

Loading docks

Concrete: Includes concrete foundation, floor, retaining walls, bumpers, and steps.

Dock Width	SF Costs where length is 10’	20’	30’	50’	100’	200’
5’	$ 65.10	$ 46.55	$ 40.30	$ 35.35	$ 35.25	$ 32.30
10	46.40	31.95	25.85	22.20	19.40	18.05
15’	37.10	25.00	21.00	17.80	16.70	15.05
20’	33.60	22.35	18.60	16.30	14.00	12.75
30’	31.90	20.65	16.95	14.50	12.45	11.10

For concrete block walls ..... deduct 5%

Wood: Includes concrete piers, wood posts & girder framework, bumpers, and steps.

Light construction - 2” plank or 2” joists ..... deduct 25%
Heavy construction - 4” plank or 4” joists ..... add 50%

Industrial Section
CIP Schedules

Cold storage refrigeration

For accurate cost build-up of cold storage plants, determine the basic building cost then add for the insulation, doors, refrigeration equipment, *etc.*

Insulation (per SFSA)

Apply costs to insulated surface area of the walls, ceilings, and floors. Costs do not include prices of inner walls or partitions that may be of concrete, concrete blocks, or wood that must be priced from the appropriate CIP schedule. For coolers or freezers without floors, deduct 23% from total costs.

Type	1"	2"	4"	6"	8"
Cork	$5.55	$6.45	$8.20	$10.10	$11.80
Fiberglass board	4.90	5.00	5.55	5.90	6.30
Foamglass board	5.65	6.80	8.70	10.75	12.80
Mineral wool batts	4.45	4.55	5.00	5.50	5.90
Styrene board	4.45	4.60	5.00	5.60	6.00
Urethane board	4.90	5.80	7.30	9.00	10.65
Urethane sprayed	3.20	4.45	6.90	9.60	10.90

Doors (per SFDA)

Costs are for manually operated, hinged, galvanized doors.

SFDA	2"	4"	6"	8"
Up to 15 SF	$105.15	$112.45	$120.35	$128.50
16 - 25	90.25	98.40	106.60	116.25
26 - 40	75.65	84.40	94.35	104.85
Over 40	63.65	72.45	82.35	93.45

For other doors, use the following adjustments.

Stainless steel ..... add 50%
Wood clad ..... deduct 10% per side
Sliding doors - single ..... add 25%
double ..... add 40%

Add for electric operators by door type
Hinged - single ..... $ 2,645 each
double ..... 3,695 each
Sliding - single ..... 4,790 each
double ..... 5,460 each

Walk-in boxes — prefab

Cost includes complete galvanized unit 7'6" high, including doors, floors, and refrigeration equipment. For wood exterior and interior, deduct 10%. Without floor, deduct 6%.

Size	32°F to 60°F	5°F to 31°F	-15°F to 5°F
50 SF	$9,900.00	$10,800.00	$11,300.00
100	14,000.00	15,000.00	15,800.00
200	20,200.00	21,500.00	25,700.00
300	24,600.00	26,000.00	30,100.00
400	28,800.00	31,900.00	34,200.00
500	32,200.00	35,300.00	37,600.00

Refrigeration equipment

Room type	Per CF
Cooler, up to 50° F	$ 0.90
Chiller, up to 0° F	1.15
Freezer, below -15° F	1.40
Sharp freezer, below -30° F	1.65

Accessories

	Per SF
Shelving - plated or galvanized	$18.70
Stainless steel shelving	40.90

Passenger elevators (electric)

Costs include shaft, penthouse, cab, and automatic controls for passenger-operated (push-button) elevator with power-operated doors. Deduct 10% for manual controls.

Speed	Capacity (lbs.)	Cost per elevator	Add for each stop
100 FPM	2,000	$ 63,900	$ 4,600
	2,500	71,400	"
	3,000	78,800	"
150 FPM	2,000	73,200	"
	2,500	81,500	"
	3,000	89,800	"
200 FPM	2,000	81,000	"
	2,500	90,100	"
	3,000	98,100	"
250 FPM	2,000	87,700	"
	2,500	96,700	"
	3,000	105,200	"
300 FPM	2,000	93,500	"
	2,500	102,800	"
	3,000	111,300	"
350 FPM	2,000	98,700	"
	2,500	108,200	"
	3,000	116,600	"
Add for stop		4,600	

Passenger elevators (hydraulic)

Costs include shaft, penthouse, cab, and automatic controls for passenger-operated (push-button) elevator with power-operated doors. Deduct 10% for manual controls.

Speed	Capacity (lbs.)	Cost per elevator	Add for each stop
100 FPM	2,000	$37,400	$ 8,800
	2,500	43,400	9,300
	3,000	47,600	9,700
150 FPM	2,000	45,300	8,800
	2,500	51,600	9,300
	3,000	57,200	9,700
200 FPM	2,000	52,400	8,800
	2,500	58,700	9,300
	3,000	61,100	9,700

Freight elevators

Costs include complete installation as above. Deduct 10% for manual controls.

Speed	Capacity (lbs.)	Add for each stop: Cost per elevator	Add for each stop: Manual doors	Add for each stop: Power doors
Hydraulic 50 FPM	2,000	$20,900	$ 5,600	$10,500
	4,000	26,500	6,300	11,500
	6,000	30,800	7,000	12,300
	8,000	33,700	7,400	12,800
	10,000	50,900	7,700	13,200
Electric 100 FPM	2,500	63,400	5,800	10,900
	4,000	67,600	6,500	11,600
	6,000	71,400	7,100	12,400
	8,000	74,400	7,400	13,000
	10,000	79,800	7,800	13,300

Add for rear door- manual ..... $ 7,200.00
power 12,500.00

Industrial Section
CIP Schedules

Rail spur track

Complete including rails, ties, and ballast.

Rail weight	Rail size	Cost per LF	Add for switch and turnout
80#	5 x 5	$ 85.50	$28,200.00
100#	5 3/8 x 6	96.95	31,500.00
115#	5 1/2 x 6 5/8	104.95	34,100.00

Add for each sliding bumper $3,665.00
Add per pair of wheel stops 860.00

Railroad scales

Cost includes concrete pit and platform with steel scale mechanism.

Capacity	Cost
150 Ton	$ 71,900.00
175 ”	80,500.00
200 ”	90,200.00
250 ”	112,300.00
300 ”	140,800.00
350 ”	174,900.00

Industrial wells and pumps

Costs include the complete well installation excluding pumps. Price well pumps separate from wells.

Wells		Vertical pumps		
Size	Cost per VLF	GPM	HP	Cost
4” - 6”	$24.70	200	5	$ 7,790.00
8” - 10”	37.05	600	10	10,900.00
12” - 14”	52.75	1,000	20	14,900.00
16” - 18”	66.25	2,000	30	23,100.00
20” - 22”	79.70	4,000	60	39,900.00
24” - 26”	95.45	6,000	100	52,000.00
28” - 30”	108.90	10,000	150	88,300.00

Towers

Self-supporting (each):	
50'	$ 17,490.00
75'	33,920.00
100'	53,795.00
150'	103,880.00
200'	165,095.00
225'	206,700.00
250'	240,885.00
300'	323,300.00
350'	413,400.00
400'	516,750.00
Triangular guyed (Per LF Ht.):	
10" Ham radio, police, fire	$ 72.00
20" Taxi, public	111.00
24" Radio, V.H.F., U.H.F.	145.00
30" Cellular	202.00
40" Microwave	254.00
54" Television	557.00

Floor recessed scales

Cost of built-in floor scale includes cost of pit, scale, and platform. For wood platform, deduct 6%.

Capacity	Cost
4,000#	$ 7,100.00
6,000#	9,500.00
10,000#	13,600.00
20,000#	22,200.00

Truck scales

Cost includes pit, beam scale, and steel weight bridge. For wood platform, deduct 6%.

Capacity	Cost
20 Ton	$ 25,500.00
30 ”	29,600.00
40 ”	34,000.00
50 ”	38,400.00
60 ”	43,400.00
70 ”	50,200.00

Add for
automatic card printer ..... $ 1,500.00
remote reading electronic system 6,700.00

Traveling overhead cranes

Bridge span	Capacity			
	10 Ton	15 Ton	20 Ton	25 Ton
20’	$ 70,700.00	$ 81,600.00	$ 93,600.00	$108,000.00
30’	77,600.00	88,500.00	101,400.00	116,300.00
40’	84,800.00	96,200.00	109,700.00	124,600.00
50’	93,100.00	104,800.00	118,600.00	133,700.00
75’	117,100.00	129,700.00	144,100.00	159,800.00
100’	147,500.00	160,900.00	175,300.00	190,700.00

Costs are averages for ground controlled, variable speed, twin girder, and overhead cranes (exclusive of craneways). For cranes with cabs, add $4,400 for minimum controls; add $16,000 for deluxe cabs with air conditioning and complete controls.

Industrial Section
CIP Schedules

Craneways (per LF)

Beam size	Supports 20' oc	Supports 25' oc	Supports 30' oc	Bldg. framing supported
12"	330.00	300.00	275.00	170.00
15"	365.00	330.00	305.00	185.00
18"	400.00	360.00	335.00	205.00
20"	420.00	380.00	350.00	215.00
24"	470.00	420.00	390.00	240.00
30"	545.00	490.00	455.00	280.00
36"	625.00	560.00	520.00	320.00

Prices are based on 16' height including craneways and supporting columns. Prices are for length of craneway. Add or subtract 5.5% for each 2' of variance from 16' base height.
Example:100 LF of 18" craneway beams with supporting columns 25' oc, 20' high =
$380 + (5.5% x $380) = $400.90;
100 LF at $400.90 = $40,090 craneway cost.

Industrial monorail cranes

Capacity (tons)			
2	3	5	10
$7,610	$7,960	$9,005	$11,640

Costs are for smaller industrial hoists where a lower capacity and headroom is required and where each has their individual craneway bracing or support system. The structural steel columns and beams of the support system must be priced and added to the hoist cost.

Above ground storage tanks

Gallons cap.	Steel	Wood
10,000	$ 22,600.00	$ 14,400.00
20,000	36,200.00	25,000.00
30,000	47,400.00	32,300.00
50,000	64,800.00	44,600.00
75,000	84,500.00	57,300.00
100,000	103,000.00	69,600.00
125,000	111,100.00	80,200.00
150,000	119,200.00	90,700.00
200,000	135,600.00	109,500.00
250,000	153,000.00	—
300,000	169,500.00	—
400,000	212,000.00	—
500,000	248,700.00	—
750,000	319,300.00	—
1,000,000	369,000.00	—

Price includes sand or gravel foundations, roofs, ladders or stairs, painting, fittings *etc.*

Add $1,400.00
per foot of diameter for pontoon floating roof.
Add $1,200.00
per foot of diameter for double deck roof.
Add $12.15
per SF of slab for concrete slab foundations.

Jib cranes — column or wall mount

Costs include column, boom, and base, if any. Capacities are for the jib crane only and costs do not include the price of the chain or rope hoist that must be added.

Boom length	Capacity	Cost
8'	1,000#	$ 1,720.00
8'	4,000#	2,805.00
8'	8,000#	4,295.00
12'	1,000#	2,090.00
12'	2,000#	2,635.00
12'	4,000#	3,635.00
12'	8,000#	5,700.00
16'	1,000#	2,635.00
16'	6,000#	6,185.00
16'	8,000#	7,590.00

Chain or rope hoists

Electric		Manual	
Capacity	Cost	Capacity	Cost
1,000#	$ 1,405.00	1,000#	$ 405.00
2,000#	1,660.00	2,000#	500.00
4,000#	2,235.00	4,000#	725.00
6,000#	2,750.00	6,000#	930.00

*Monorail hoist systems may be priced by adding together the costs of the single steel beam and the chain (or rope) hoist, each according to its size and/or its capacity.

Steel columns and beams

I beams		H beams	
Size	Per LF	Size	Per LF
4"	$ 24.00	4" x 4"	$ 28.35
6"	31.55	6" x 6"	36.45
8"	37.90	8" x 8"	47.70
12"	49.75	12" x 12"	80.70
15"	57.85	14" x 14"	104.10

Industrial Section
CIP Schedules

Paving

Paving type	Per SFGA
Asphalt	
Binder course	
2" thick	0.50
3" thick	0.75
4" thick	1.00
Wearing course	
1 1/2" thick	0.45
2" thick	0.60
2 1/2 " thick	0.70
Light traffic (drive-ins, parking lots, *etc.*)	0.95
Heavy traffic (truck stops, service stations, *etc.*)	1.85
Concrete	
6"	2.85
8"	3.85
9"	4.45
Crushed stone (includes grading)	
3"	0.35
6"	0.55
9"	0.80
Curbs	**Per LF**
Asphalt	
6" x 8"	2.35
8" x 8"	2.65
Concrete	
6" x 18" cast in place, straight	7.80
6" x 18" cast in place, curved	15.45
6" x 18" precast, straight	13.80
6" x 18" precast, curved	20.85
Granite	
5" x 16"	18.50
6" x 18"	23.05
Sidewalks	**Per SFGA**
Asphalt on ground	
2"	0.90
2 1/2"	1.10
Concrete on ground	
4"	3.50
5"	4.20
6"	4.70
Add for exposed aggregate	0.70
Prepared base (for above walks) 4"	0.75
8"	1.45
Steps	**Per LF tread**
Concrete	26.85
Brick	43.80
Railroad ties	30.70

Yard lighting

Poles (installed)

Type			20'	30'	40'
Aluminum	1	arm br.	$1,890.00	$2,935.00	$3,720.00
	2	"	2,000.00	3,055.00	3,815.00
	3	"	2,140.00	3,185.00	3,965.00
	4	"	2,240.00	3,310.00	4,060.00
Steel	1	arm br.	2,180.00	2,600.00	3,435.00
	2	"	2,275.00	2,695.00	3,530.00
	3	"	2,330.00	2,755.00	3,620.00
	4	"	2,425.00	2,875.00	3,740.00
Wood	1-10'	arm	430.00	—	—
	12'	"	535.00	—	—
	15'	"	620.00	—	—
	20'	"	745.00	—	—

Flood lights

Add to cost of poles and arms.

Type	Size	Cost each
Incandescent	500 W	$ 295.00
	1,000 W	350.00
	1,500 W	365.00
Metal halide	175 W	585.00
	400 W	690.00
	1,000 W	875.00
Mercury-vapor	400 W	595.00
	1,000 W	735.00
Sodium	400 W	675.00
	1,000 W	915.00

Fencing (per LF)

Type	Height		
	4'	6'	8'
Chain link	$ 8.30	$ 12.15	$ 16.00
Add for			
gates (swinging) each	405.00	505.00	585.00
motor operated	30%	30%	30%
vinyl cover add	10%	10%	10%
barbed guard, per LF	2.05	2.05	2.05
sliding add	25%	25%	25%
Cedar			
picket	14.60	20.75	—
split rail	10.00	—	—
stockade	—	13.00	—
Redwood			
picket	13.80	20.75	—
basket weave	17.55	25.20	—
Solid board	13.55	15.25	—
Add for gates, per SF	10.05	10.05	10.05
paint, per SF	0.40	0.40	0.40

Industrial Section
CIP Schedules

Signs

The cost estimate for a particular sign installation combines the cost of the display sign itself and the costs of the support columns or wall installation.

Type	Per SF sign
Painted metal	
single face	$ 42.75
double face (use SF of one side)	54.25
porcelainized (add per SFSA)	9.15
w/neon tubing (add per face)	40%
Plastic - illuminated	
single face	102.35
double face (use SF of one side)	145.10

Wall brackets	Per SF sign
Costs of brackets in place per SF sign surface, projected from wall	$ 7.10

Sign poles

Costs include concrete base. Estimate column height from ground to bottom of sign for horizontal signs and overall height for vertical signs.

Base dia.	Per LF	Base dia.	Per LF
4”	$ 43.20	10”	$ 97.55
6”	61.90	12”	115.65
8”	80.00	14”	132.60

Billboard signs	
Single face w/wood poles (SFSA)	$ 23.60
Art, display, & pictorial (SFSA)	3.60
Steel poles (SFSA)	6.55
Wood platform (LF)	23.10
Steel platform (LF)	45.15
Additional back-to-back sign panel	Add 50%
Illumination (base cost per site)	770.00
Add for	
Incandescent	220.00
Quartz	365.00
Mercury vapor	955.00
Sodium	1,295.00

Parking lot accessories

Type of accessory	Each
Barier gate:programable	$ 4,200.00
Card reader	2,370.00
Cashier booth Avg.	13,095.00
Fee computer	16,115.00
Ticket spitter w/time & date	7,885.00
Mag.spripe encoding	22,710.00
Vehicle detector	615.00
Guide rails	
corrugated steel	18.30
timber	22.60
cable	9.65
Paint striping	0.30

Flagpoles
Cost for typical heights, includes concrete base

	Height				
Type	20’	25’	30’	35’	50’
Aluminum	$2,030.00	$2,270.00	$2,390.00	$3,055.00	$5,440.00
Steel	1,665.00	1,860.00	1,960.00	2,505.00	4,460.00
Fiberglass	—	2,430.00	3,000.00	3,605.00	7,215.00
Wood	—	1,940.00	2,350.00	—	—

For bronze or SS poles, add 125% to steel price.

Septic tanks
(not including piping)

Type	Gallons cap.	Cost
Precast concrete	750	$ 905.00
	1,000	1,205.00
	1,250	1,500.00
	1,500	1,810.00
	2,000	2,330.00
	4,000	4,870.00
	6,000	7,285.00
	10,000	12,240.00
Leaching lines - tile (per LF)		$ 9.05
Plastic pipe (per LF)		5.60

Sewage pumping stations
(not including external piping)

Costs are for prefabricated steel, concrete, or fiberglass plants with 200 and 1,000 gallon per minute capacities.

200 GPM		$ 71,320.00
1,000 GPM		137,445.00
Add for generator unit		
200 GPM	concrete	29,635.00
	steel	45,680.00
1,000 GPM	concrete	41,020.00
	steel	49,705.00

Sewage treatment plants
(not including underground piping)

Type	GPD	Cost per gal.
Steel - blown air Aeration plant	1,000	$ 19.85
	5,000	13.25
	15,000	7.25
	50,000	5.30
	100,000	4.60
	200,000	3.30
	500,000	3.20
Concrete extended primary and secondary treatment	10,000	14.55
	50,000	5.95
	100,000	4.65
	500,000	3.35

Industrial Section
CIP Schedules

Elevated tanks

Costs include tank, tower, riser pipe, ladders, balcony, *etc.*

Steel tanks

Capacity (gallons)	Tower height			
	50’	75’	100’	150’
50,000	$ 170,100.00	$ 187,400.00	$ 215,200.00	$ 276,500.00
75,000	201,300.00	223,300.00	251,000.00	311,200.00
100,000	218,700.00	239,500.00	268,400.00	329,700.00
200,000	359,800.00	389,900.00	418,800.00	477,800.00
300,000	448,900.00	490,500.00	520,600.00	579,600.00
400,000	526,400.00	575,000.00	601,600.00	666,400.00
500,000	587,700.00	638,800.00	688,300.00	760,100.00

Wood tanks

Capacity (gallons)	25’	50’	75’	100’
30,000	$ 52,500.00	$ 62,800.00	$ 77,900.00	$ 99,700.00
50,000	69,600.00	81,300.00	98,000.00	81,600.00
75,000	—	100,000.00	120,300.00	155,500.00

Underground pipe (per LF)
(including trenching and back filling)

Costs include pipe and fittings installed up to the building

	4”	6”	8”	12”	16”	24”	36”	48”	60”	72”
Water, gas, & steam										
Asbestos cement	$ 25.00	$ 30.00	$ 40.00	$ 80.00	$ 110.00	$ 195.00	$ 335.00	—	—	—
Ductile iron	25.60	28.60	44.50	61.25	107.35	128.15	187.00	$ 259.90	—	—
Concrete	—	—	—	—	42.20	72.75	140.60	216.10	$ 309.30	$ 414.95
Plastic	14.80	17.30	25.50	45.65	—	—	—	—	—	—
Steel	28.40	35.45	45.10	79.40	100.20	154.20	278.10	435.60	—	—
Valves, each	660.00	1,460.00	2,390.00	5,125.00	8,750.00	19,090.00	40,250.00	69,605.00	—	—
Drain & sewer										
Asbestos cement	—	12.95	14.85	30.75	58.00	70.30	119.85	—	—	—
Corrugated metal	—	13.90	18.85	32.25	43.20	61.00	109.85	155.00	257.60	285.40
Plastic	5.60	8.00	12.25	21.55	—	—	—	—	—	—
Concrete-plain	—	14.10	18.10	26.10	33.75	—	—	—	—	—
reinforced	—	—	—	27.60	39.10	64.00	116.00	165.00	268.75	323.35
Vitrified clay	12.10	16.85	22.35	43.25	76.90	115.40	187.30	—	—	—

Yard fire hydrants — $3,965 Catch basins — $4,040 each

Stacks (brick and concrete)

Costs include foundation. For square or rectangular stacks, use 1/3 the perimeter in place of diameter.

Base Diameter	Brick per VLF	Concrete per VLF	Base Diameter	Brick per VLF	Concrete per VLF
6’	$ 685.00	$ 575.00	16’	$ 1,520.00	$ 1,290.00
8’	870.00	715.00	20’	1,805.00	1,575.00
10’	1,060.00	860.00	24’	2,120.00	1,860.00
12’	1,230.00	1,030.00	28’	2,405.00	2,120.00
14’	1,375.00	1,205.00	32’	2,750.00	2,405.00

Industrial Section
Grain Elevators — Pricing Procedure

To use schedules A, B, and C, select a per bushel price according to the nearest bushel capacity to the subject facility. Apply this price to the exact bushel capacity of the subject elevator to derive a base cost. The base cost price includes the items listed in the bottom note of each schedule. Also listed in the bottom note are items typically found with each type of elevator that must be priced separately using other manual schedules. Elevator types A, B, and C often have "added-on" storage and handling equipment similar to that described in type D grain elevator schedules. In this case, separate prices should be added from the D schedules.

Example:

An old wood-frame country elevator with 82,000 bushel capacity. The subject property also has

Two 46,000 bushel steel storage tanks
One 250 bushel dump pit
One 80' leg with 1,000 BPH capacity
One 6 duct distributor head
300 LF of round 6" spouting
Two 2,900 BPH grain dryers

Base price 82,000 bu. x $5.90	=	$483,800
2 — 46000 bu. steel storage tanks $79,500 each	=	159,000
1 — 80' leg w/1,000 BPH capacity $415 x 80 LF	=	33,200
1 — 6" , 6 duct distributor head	=	2,150
1 — yard dump pit, 250 bu.	=	18,700
300 LF 6" round spouting $7.55 x 300 LF	=	2,265
2 — 2,900 BPH grain dryers $230,600 each	=	461,200
Total cost estimate grain handling facilities		**$1,160,315**

Add the cost of other yard and outside improvements, scale house, railroad spurs, scales, *etc.,* to determine the total RCN estimate.

Type D facilities are custom-assembled according to the owner's judgment for the particular location. They usually consist of a battery of steel grain tanks with related grain handling equipment and subsidiary buildings. However, the storage facilities may be concrete tanks or a combination of steel and concrete grain storage tanks.

To calculate the total cost estimate, price each storage tank, each piece of grain handling equipment, and each yard and outside item of construction separately.

Example:

6 — 35,000 bu. steel tanks, approximately 56' height $62,800 each	=	$376,800
6 — 46,000 bu. steel tanks approximately 72' height $79,500 each	=	477,000
12 — 59,000 bu. steel tanks approximately 88' height $96,900 each	=	1,162,800
1 — 76,000 bu. steel building flat grain storage 76,000 bu. x $1.40	=	106,400
3 — dump pits, 900 bu. $30,900 each	=	92,700
2 — 60' legs/1,500 BPH $490 x 60 LF	=	29,400
1 — 80' leg/2,000 BPH $470 x 80 LF	=	37,600
2 — 6" 12 duct distributor head $3,600 each	=	7,200
2 — 6" 6 duct distributor head $2,150 each	=	4,300
1,800 LF of 6" round spouting $7.55 x 1,800 LF	=	13,590
2 — 2,900 BPH grain dryers $230,600 each	=	461,200
1 — 120' x 12" elevated belt conveyer $18,650 each	=	18,650
Total cost of grain storage and handling facilities		**$2,787,640**

Industrial Section
Grain Elevator Schedules

Type A — wood framed

BU capacity	Elevator cost per BU
20,000	$ 10.10
25,000	9.35
30,000	8.55
40,000	7.65
50,000	6.95
75,000	5.90
100,000	5.25
150,000	4.60
200,000	3.95
250,000	3.75
300,000	3.55

Note: Costs do not include any separate office building, scale house, drying equipment, dump pits, railroad scales or spurs or yard improvements. These items must be described and priced separately from the appropriate schedules. See Type B or grain tank steel schedules for annex.

Grain conversion tables

1 Bushel corn =	1.2445 CF	or 56 lbs.
1 Bushel wheat =	"	or 60 lbs.
1 Bushel soybeans =	"	or 60 lbs.
1 Bushel oats =	"	or 32 lbs.
1 Bushel barley =	"	or 45 lbs.

1 Cubic foot (CF) = .8036 bushel
1 Gallon = .1337 CF or .1074 bushel

To compute the volume of a circular bin with a flat top:

1 Multiply the square of the diameter of the bin floor x .63135 to get the bushel storage per foot of bin.

2 Multiply the bushel storage per foot by the eave height of the bin. (D^2 x .63135 x H)

Example:

Bin is 21' dia. x 40' high =
21' x 21' x .63135 = 278.43 (base area)
278.43 x 40' = 11,137 bushels.

To compute the volume of same bin with an estimated 6' high cone top, multiply the area of the base by 1/3 the altitude, then add this additional volume to the already calculated volume of the flat top bin or

278.43 x 2' = 557 additional bushels

Type B — concrete country

BU capacity	Elevator cost per BU	Annex cost per BU*
75,000	$ 8.20	5.30
100,000	7.65	4.95
150,000	6.90	4.45
200,000	6.45	4.15
250,000	6.05	3.95
300,000	5.80	3.75
400,000	5.40	3.50
500,000	5.10	3.30
750,000	4.60	3.00
1,000,000	4.30	2.80
2,000,000	3.60	2.35
2,000,000+	3.25	2.10

*Costs are for an annex with a basement.
For an annex with a tunnel only, deduct 9%.

Note: Costs do not include any separate office building, scale house, supplemental storage buildings, drying equipment, railroad spurs, truck or railroad scales or yard improvements. These items must be described and priced separately from the appropriate schedule.

Supplemental equipment

Truck lifts, hydraulic, 70' - 36^0 tilt in concrete cell (w/o scale)	$119,000
Dump pits (in yard) 250 bu.	18,700
(17' deep x 14' W x 12' L) 900 bu.	30,700
Manlifts — per lin. ft. travel	
electric operated — LF	233
manual operated — LF	91
Aeration tubes, 12" dia., per LF	15.90
Grain truck probe	11,600

Industrial Section
Grain Elevator (Type D) Schedules

Feed mill equipment

Because of the vast variety of types and sizes of feed mills, some of which are combined with a country-type elevator, it is recommended that the building be priced from the appropriate CIP schedules.

Equipment — the cost of the machinery is very flexible and the costs in the table represent a range based on the cubic feet of building volume which can be used as a guideline.

Normal machinery and equipment consists of a dump pit and screw conveyor, temporary storage bins, molasses tank and mixer, hammer-mill, roller mill, and an elevator or conveyor system.

Building Volume	Per CF of building
20,000 CF	$2.80
30,000	2.60
40,000	2.40
50,000	2.15
75,000	2.00
100,000	1.90
125,000	1.75
150,000 and more	1.65

Grain dryers

Continuous flow grain dryers

Farm		Commercial	
Bu per hr.	Base cost	Bu per hr.	Base cost
790	63,700	1400-1999	199,900
1115	88,400	2000-2925	230,600
1350	105,500	3500	261,700
1650	149,600	over 3500	70.65

Add

Safety fire alarm	5,637
Heat recovery	16,910
Base section control	5,022

Centrifugal bin fans

Type	Cost
Fans without motor	1,535.00
Fans with 5 hp. single phase	2,595.00
Fans with 7.5 hp. single phase	3,040.00
Fans with 10 hp. single phase	3,490.00
Fans with 5 hp. 3 phase	2,055.00
Fans with 7.5 hp. 3 phase	2,140.00
Fans with 10 hp. 3 phase	2,700.00

Conveyors — elevated*

Length	8”	12”	16”	24”
15’	3,300	3,900	4,950	5,000
30’	4,850	6,350	7,700	9,650
45’	6,650	9,000	10,450	13,550
60’	8,200	11,050	12,850	15,950
75’	9,950	13,150	14,700	20,000
90’	11,400	15,250	16,600	24,000
120’	14,350	18,650	20,700	32,000
150’	17,400	24,100	24,700	38,950
200’	21,650	28,400	34,850	49,300

*For tunnel conveyors, deduct 25%.

Belt capacities

8” = 5,500 BPH	16” = 12,000 BPH
12” = 8,000 BPH	24” = 17,000 BPH

Distributors (each) manual 45⁰

No. of ducts	6” - 8” dia.	9” - 12” dia.
3	$2,060.00	2,080.00
6	2,150.00	2,930.00
12	3,600.00	5,020.00
18	5,460.00	7,190.00

Spouting (per LF)

Size	Flexible	Round	Square
6”	$5.75	7.55	13.50
8”	5.90	9.55	17.85
10”	9.00	12.20	22.35
12”	12.10	18.60	26.85
14”	14.75	24.70	30.30

Spouting (per LF) costs include installation on legs or saddle pads (including fittings on tank) but not pipe, valves, or foundations.

LP tanks — horizontal

Capacity	Size	Cost
5,000	5’ x 36’	$19,100.00
7,500	6’ x 37’	24,300.00
10,000	6’ x 50’	31,700.00
12,500	6’ x 61’	35,400.00
15,000	7½’ x 50’	38,500.00
20,000	7½’ x 65’	45,600.00
25,000	9½’ x 51’	46,900.00

Elevator legs (bucket conveyors)

Cap. bu.	Discharge height (per VLF) (Multiply cost per foot times height to determine cost of equipment.)						
Per hr.	30’	40’	50’	60’	80’	100’	120’
500	$ 770.00	$ 585.00	$ 485.00	$ 425.00	—	—	—
750	785.00	605.00	505.00	450.00	—	—	—
1,000	805.00	615.00	515.00	465.00	$ 415.00	$ 380.00	$ 360.00
1,500	845.00	655.00	535.00	490.00	450.00	405.00	375.00
2,000	890.00	680.00	570.00	505.00	470.00	425.00	400.00
3,000	980.00	750.00	645.00	550.00	505.00	470.00	425.00
5,000	1,095.00	915.00	770.00	670.00	600.00	535.00	500.00
7,500	—	1,135.00	950.00	825.00	715.00	640.00	575.00
10,000	—	—	1,120.00	980.00	830.00	730.00	670.00

Industrial Section
Grain Elevator Schedules

Grain tanks — steel

Costs are for bolted steel tanks, including concrete foundation only.

Dia.	Eave height	Bu. cap.	Cost
9’	24’	1,614	6,200.00
	32’	2,152	7,900.00
	40’	2,690	9,100.00
	56’	3,776	11,900.00
	72’	4,842	14,300.00
12’	24’	2,873	9,600.00
	32’	3,830	11,400.00
	40’	4,750	15,600.00
	56’	6,700	18,700.00
	72’	8,620	21,800.00
15’	24’	4,485	12,900.00
	32’	5,980	16,100.00
	48’	8,970	22,200.00
	64’	11,960	27,900.00
	80’	14,966	33,400.00
18’	24’	6,456	16,700.00
	40’	10,760	25,000.00
	56’	15,064	32,800.00
	72’	19,389	40,100.00
	88’	23,716	47,200.00
21’	32’	11,725	27,500.00
	40’	14,669	32,600.00
	56’	20,531	42,100.00
	72’	26,424	50,500.00
	88’	32,315	59,400.00
26’	32’	17,284	38,200.00
	48’	25,948	50,500.00
	64’	34,635	62,800.00
	72’	43,322	69,600.00
	88’	52,009	81,900.00
32’	32’	26,378	51,900.00
	40’	33,006	61,800.00
	56’	46,264	79,500.00
	72’	59,521	96,600.00
	88’	72,778	111,900.00

For corrugated galvanized tanks, see rural section.

Steel building flat grain storage

Costs include concrete foundation and floor, steel panel walls, gable steel roof with rigid steel frame, doors, and explosion-proof lighting.

The SFGA costs do not include heat, loading or leveling systems, aeration devices, or any other features, and are only for those buildings specially designed and built for the storage of grain.

For other types of construction, price from the appropriate schedules.

Bushel capacity	Cost per bushel	Bushel capacity	Cost per bushel
50,000	$ 1.50	300,000	$ 1.20
75,000	1.40	400,000	1.10
100,000	1.35	500,000	1.10
150,000	1.30	750,000	1.05
200,000	1.25	1,000,000	1.00
250,000	1.20	2,000,000+	0.90

Quonset buildings

Costs include standard building with concrete footings and doors at each end.

Costs do not include floors, heating, lighting, or plumbing. Heating and plumbing should be added from CIP schedules.

Length	30’ Wide	40’ Wide	60’ Wide	70’ Wide
30’	$ 16.70	—	—	—
36’	16.00	—	—	—
48’	14.90	$ 13.65	—	—
60’	14.10	12.90	$ 12.25	—
72’	13.45	12.30	11.70	$ 11.30
84’	13.00	11.85	11.25	10.90
96’	12.55	11.45	10.90	10.50
108’	12.20	11.10	10.55	10.20
120’	11.85	10.85	10.25	9.90
160’	11.05	10.10	9.50	9.20
200’	—	9.50	9.00	8.75

Additions	Cost
Floors —	
asphalt	0.50
concrete	2.60
crushed stone	1.05
Lighting	1.70

Auger and drive

This is used for the unloading of grain bins directly into hoppers.

Tank diameter	Base price
15’	$ 770.00
18’	865.00
21’	960.00
26’	1,120.00
30’	1,245.00
34’	1,375.00
40’	1,565.00

Rural Section
Farmland Implementation Guidelines

The following guidelines are issued according to Section 10-115 of the Property Tax Code which states, "The Department shall issue guidelines and recommendations for the valuation of farmland to achieve equitable assessment within and between counties."

Definitions of land use

Section 10-125 of the Property Tax Code identifies cropland, permanent pasture, other farmland, and wasteland as the four types of farmland and prescribes the method for assessing each. Law requires cropland, permanent pasture, and other farmland to be defined according to US Bureau of Census definitions. The following definitions comply with this requirement.

A **Cropland** includes all land from which crops were harvested or hay was cut; all land in orchards, citrus groves, vineyards, and nursery greenhouse crops; land in rotational pasture, and grazing land that could have been used for crops without additional improvements; land used for cover crops, legumes, and soil improvement grasses, but not harvested and not pastured; land on which crops failed; land in cultivated summer fallow; and, idle cropland.

B **Permanent pasture** includes any pastureland **except** woodland pasture and pasture qualifying under the Bureau of Census' cropland definition which includes rotational pasture and grazing land that could have been used for crops without additional improvements.

C **Other farmland** includes woodland pasture; woodland, including woodlots, timber tracts, cutover, and deforested land; and farm building lots other than homesites.

D **Wasteland** is that portion of a qualified farm tract that is not put into cropland, permanent pasture, or other farmland as the result of soil limitations and not as the result of a management decision.

Assessment procedures

A **Cropland** is assessed according to the equalized assessed value (EAV) of its debased soil productivity index (PI) as certified by the department. Each year, the department supplies a table that shows the EAV of cropland by PI.

Cropland with a PI below the lowest PI certified by the department is assessed as follows:

Step 1 Subtract the EAV of the lowest certified PI from the EAV for a PI that is five greater.

Step 2 Divide the result of Step 1 by 5.

Step 3 Find the difference between the lowest PI for which the department certified a cropland EAV and the PI of the cropland being assessed.

Step 4 Multiply the result of Step 2 by the result of Step 3.

Step 5 Subtract the result of Step 4 from the lowest EAV for cropland certified by the department.

Step 6 The EAV of the cropland being assessed will either be the result of Step 5 or one-third of the EAV of cropland for the lowest certified PI, whichever is greater.

B **Permanent pasture** is assessed at one-third of its debased PI EAV as cropland. By statute, the EAV of permanent pasture cannot be lower than one-third of the EAV per acre of cropland of the lowest PI certified by the department.

C **Other farmland** is assessed at one-sixth of its debased PI EAV as cropland. By statute, the EAV of other farmland cannot be lower than one-sixth of the EAV per acre of cropland of the lowest PI certified by the department.

D **Wasteland** is assessed according to its contributory value to the farm parcel. In many instances, wasteland contributes to the productivity of other types of farmland. Some land may be more productive because wasteland provides a path for water to run off or a place for water to collect. Wasteland that has a contributory value should be assessed at one-sixth of the EAV per acre of cropland of the lowest PI certified by the department. When wasteland has no contributory value, a zero assessment is recommended.

Debasement factors

A Debasement for slope and erosion. Use the Slope-erosion adjustment table located in this section to make adjustments to the PI for slope and erosion.

B Debasement for flooding. Adjust the PI of the affected acreage *only*, which suffers actual, not potential, crop loss due to flooding as prescribed in *Circular 1156,* published by the University of Illinois, College of Agriculture, Cooperative Extension Service. The following text is taken directly from *Circular 1156*.

> "Estimated yields and productivity indexes given in Table 2 for bottomland soils apply to soils that are protected from flooding or a prolonged high water table during the cropping season because of high water in stream valleys. Soils that are subject to flooding are less productive than soils that are protected by levees, *etc.* The frequency and severity of flooding is often governed by landscape characteristics and management of the watershed in which a soil occurs.
>
> For this reason, factors used to adjust productivity indexes for flooding must be based upon knowledge of the characteristics and history of the specific site. Wide variation in the flood hazard, sometimes within short distances in a given valley, requires that each situation be assessed locally.
>
> If the history of flooding in a valley is known to have caused three years of essentially total crop failures out of ten years, for example, the estimated yields and productivity indexes of the bottomland soils could be reduced to 70 percent of those given in Table 2. Estimated crop yields and productivity indexes of upland soils subject to crop damage from ponding have been reduced accordingly in Table 2."

Flood debasement procedures should

- identify the actual acres affected by flooding;
- determine, from yield data, the extent of crop loss (in bushels) caused in each flood situation;
- adjust the PI of the affected soils by a percentage equal to the percentage of crop loss caused by each flooding situation over a multi-year (preferably ten-year) period; and
- recompute the flood debasements annually. The continuous collection and analysis of yield data is needed in order to identify and compensate for changes in a parcel's flooding history.

C Debasements for ponding. Usually, no adjustment for ponding is made. Long-term yield averages taken at many locations, such as those contained in *Circular 1156*, include the effects of ponding. However, when ponding consistently produces a crop loss, make a flooding adjustment.

D Debasements for droughtiness. Do not make an adjustment for soil droughtiness. Long-term yield averages taken at many locations, such as those described in *Circular 1156,* already include the effects of droughtiness.

E Debasement for drainage district assessments. The EAV of farmland acreage that is subject to a drainage district assessment may be adjusted. Divide the amount equal to $33^{1}/_{3}$ percent of the per acre drainage district assessment by the five-year Federal Land Bank mortgage interest rate for that assessment year. Subtract the result from the EAV. Since drainage district assessments may vary greatly from year to year, it is advisable to use a five-year average of per acre drainage district assessments when making this adjustment.

F Debasements for soil inclusions. Do not make a general adjustment for soil inclusions. Long-term yield averages taken at many locations, such as those contained in *Circular 1156*, include the effects of many inclusions. Only unusual conditions of large amounts of inclusions with differing productivity potential would be likely to affect the productivity of a local area.

Guidelines for alternate uses

A Roads. Do not assign a value to acreage in dedicated roads unless a portion of the right-of-way is in a farm use. In this case, assess this portion.

B Creeks, streams, rivers, and drainage ditches. Assess acreage in creeks, streams, rivers, and drainage ditches that contribute to the productivity of a farm as contributory wasteland. Assess acreage that does not contribute to the productivity of a farm as non-contributory wasteland.

C Grass waterways and windbreaks. Assess acreage in grass waterways and windbreaks as other farmland.

D Ponds and borrow pits. Assess ponds and borrow pits used for agricultural purposes as contributory wasteland. If a pond or borrow pit is used as part of the homesite, assess it with the homesite at $33^{1}/_{3}$ percent of market value.

E Power lines. Generally, no adjustment is made.

F Lanes and non-dedicated roads. Assess acreage in lanes and non-dedicated roads the same as the adjacent land use. This could be as cropland, permanent pasture, other farmland, or wasteland.

G Assessment of land under an approved forestry management plan. Land that is being managed under the Illinois Forestry Development Act (FDA), as approved by the Illinois Department of Natural Resources, is considered other farmland for assessment purposes. Land assessed under the FDA is excluded from both the two-year and primary-use requirements. Any change in assessed value resulting from a newly-approved FDA plan begins on January 1 of the assessment year immediately following the plan's initial approval date (whether or not trees have been planted). Changes in assessed value resulting from amendments or cancellations of existing plans also begin as of January 1 of the assessment year following the change. If the effective date of an FDA plan is January 1, then that plan would be eligible for an FDA assessment for that assessment year. Once the chief county assessment officer (CCAO) receives official notification that a tract has been granted approved FDA status, this status remains in effect until notified otherwise or until the property is sold.

H Assessment of land in vegetative filter strips. Land in all downstate counties that has been certified by the Soil and Water Conservation District (SWCD) as being in an approved vegetative filter strip (VFS) is eligible, upon application, to be assessed at one-sixth of its soil PI EAV as cropland. Land in Cook County that has been certified by the SWCD as being in an approved VFS is eligible, upon application, to be assessed according to Section 10-130 of the Property Tax Code. Land assessed as a VFS is excluded from both the two-year and primary-use requirements.

The effective date of the initial legislation that creates the assessment provision for a VFS is January 1, 1997. Assessment as a VFS begins in the first assessment year after 1996, for which the property is in an approved VFS use on the annual assessment date of January 1. For example, land that is in a VFS during a portion of 2001, and is certified by the SWCD as being in an approved status on January 1, 2002, is eligible for assessment as a VFS for the 2002 assessment year.

I Land in Christmas tree production. Land used for growing Christmas trees is eligible for a farmland assessment provided it has been in Christmas trees or another qualified farm use for the previous two years and that it is not part of a primarily residential parcel. If Christmas trees are grown on land that either was being cropped prior to tree plantings or land that ordinarily would be cropped, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the other farmland assessment should apply. If Christmas trees are grown on land that was neither in crop production prior to tree planting nor would ordinarily be cropped, then the other farmland assessment instantly applies.

J Land in conservation reserve program (CRP). Land in the CRP is eligible for a farmland assessment provided it has been in the CRP or another qualified farm use for the previous two years and is not a part of a primarily residential parcel. CRP land is assessed according to its use. Land enrolled into the CRP can be planted in grasses or trees. If grass is planted, this land will be classified as cropland (according to the Bureau of Census' cropland definition). If trees are planted, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the other farmland assessment should apply.

K Horse boarding and training facilities. The boarding and training of horses (regardless of the use for which the horses are being raised) is generally considered to meet the "keeping, raising, and feeding" provisions of the farm definition pertaining to livestock. Therefore, such a tract would be eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years; and, it is not part of a primarily residential parcel.

L Assessment of tree nurseries. Tree nurseries are included in the statutory definition of a farm. Such a tract would be eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. If trees are grown on land that either was being cropped prior to tree planting or land that ordinarily would be cropped, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the other farmland assessment should apply. If trees are grown on land that was neither in crop production prior to tree planting nor would ordinarily be cropped, then the other farmland assessment would instantly apply.

M Assessment of greenhouse property. Greenhouses are included in the statutory definition of a farm. To qualify as a greenhouse, a building must be used for cultivating plants. A tract that qualifies as greenhouse property is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Greenhouses are assessed according to their contributory value, and greenhouse lots are assessed as other farmland.

N Wildlife farming. Wildlife farming is included in the statutory definition of a farm. To qualify for wildlife farming, a tract must comply with the "keeping, raising, and feeding" provisions of the farm definition. The mere keeping of a wildlife habitat does not meet these provisions. Hunting may be a component of wildlife farming; but, hunting, in itself, does not constitute wildlife farming. Neither is just the purchase and release of adult game for hunting considered wildlife farming. Land that is actively engaged in the farming of wildlife is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Any such land that was either previously being cropped or ordinarily would be cropped, would warrant a cropland assessment until additional improvements (*e.g.,* clearing) would be required before the land could be cropped again. At this point, the other farmland assessment would apply. Any such land that neither was being cropped nor ordinarily would be cropped, would warrant an other farmland assessment.

O Fish farming. Fish farming is included in the statutory definition of a farm. To qualify for fish farming, a tract must comply with the "keeping, raising, and feeding" provisions of the farm definition. Fishing may be a component of fish farming; but, fishing, in itself, does not constitute fish farming. Neither is just the purchase and release of fish for fishing, a practice often referred to as "put and take," considered fish farming. Land that is actively used for the farming of fish is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel.

P Compost sites. Composting, generally, does not meet the farm definition. However, an on-farm composting site, where the finished product is for on-farm use, does qualify for the farmland assessment. If such a composting site is situated on land that either was being cropped prior to the composting activity or that ordinarily would be cropped, then the cropland assessment applies until the composting activity would prevent the land from being cropped again without first having to undergo significant improvements. At this point, the contributory wasteland assessment should apply. If the composting site is situated on land that was neither in crop production prior to composting activity nor would ordinarily be cropped, then the contributory wasteland assessment should instantly apply.

Q Sewage sludge disposal sites. Determining the proper assessment classification for farmland that is also used as a sewage sludge disposal site depends upon circumstances pertaining to the particular site, such as

- the application rate of the sludge,
- whether or not the application of the sludge interferes with farming operations (sludge can be applied before a crop is planted, directly to a crop, after a crop is harvested, or in a manner so intensive as to prohibit farming), or
- whether or not the owner or operator of the site receives financial payment.

The overriding factor to determine whether such a dually-used tract is eligible for a farmland assessment is whether or not the sludge is being applied at agronomic rates (*i.e.,* rates which are suitable for the growth and development of crops). If nonfarm sludge is applied to an otherwise eligible farm tract at an agronomic rate, then the farm classification applies. If, however, cessation of farming occurs as a result of sludge being applied at a nonagronomic rate, then the farm classification may not apply. Even if application of nonfarm sludge at a nonagronomic rate does not interfere with farming operations, income generated from this nonfarm activity may conflict with the law's sole-use requirement.

The Illinois Environmental Protection Agency, Water Pollution Control Division, should be contacted at 217 782-1696 for information pertaining to whether or not nonfarm sludge is being applied at an agronomic rate.

Other Guidelines

A "Idle land" is land that is not put into a qualified farm use as the result of a management decision, including neglect. Idle land differs from wasteland, which is defined as "... that portion of a qualified farm tract which is not put into cropland, permanent pasture, or other farmland as the result of soil limitations and not as a result of a management decision."

How to assess idle land depends upon whether or not the idle land

- is part of a farm,
- could be cropped without additional improvements, and
- is larger or smaller than the farmed portion of the parcel or tract.

Guidelines for the assessment of idle land are as follows:.

- If idle land is **not** part of a farm or not qualified for a special assessment (*i.e.,* open space), treat it as nonfarm and assess it at market value according to its highest and best use.
- If idle land is part of a farm, and could be cropped without additional improvements, it may be assessed as cropland if the idle portion of the parcel is smaller than the farmed portion of the parcel.
- If idle land is part of a farm but could not be cropped without additional improvements, it may be assessed as wasteland if the idle portion of the parcel is smaller than the farmed portion of the parcel.
- Generally, when the idle portion of the parcel is larger than the farmed portion of the parcel, the idle portion is assessed at market value according to its highest and best use. However, when a farm tract consists of multiple tax parcels, the cropland or wasteland assessment may apply to the idle portion of a predominantly (or exclusively) idle parcel if the idle portion of the overall farm tract is smaller than the farmed portion of the tract.

Distinguishing between idle land (that is not farmland) and land that may qualify under the farm definition as "forestry" may be difficult. However, to qualify as forestry, a wooded tract must be systematically managed for the production of timber.

B Primary use provision of the farm definition. The statutory farm definition (35 ILCS 200/1-60) states: "For purposes of this Code, 'farm' does not include property which is primarily used for residential purposes even though some farm products may be grown or farm animals bred or fed on the property incidental to its primary use." Because the farm definition prohibits farmed portions of primarily residential parcels from receiving a farmland assessment, assessors must make primary-use determinations on parcels that contain both farm and residential uses.

The determination of primary-use must have a rational basis and be uniformly applied in the assessment jurisdiction. This recommended guideline is intended to supplement the assessor's judgement and experience and to provide advice and direction to assessors to determine whether or not a parcel with both farm and residential uses is used primarily for residential purposes. This guideline does not apply to tracts assessed under the forestry management or vegetative filter strip provisions of the Property Tax Code, nor does it apply to parcels that do not contain any residential usage.

According to this guideline, the primary use of a parcel containing only intensive farm and residential uses is residential unless the intensively-farmed portion of the parcel is larger than the residential portion of the parcel. For purposes of this guideline, **"intensive farm use"** refers to farm practices for which the per acre income and expenditures are significantly higher than in conventional farm use. Intensive farm use is typically more labor-intensive than conventional farm use. According to this guideline, the primary use of a parcel containing only conventional farm and residential uses is residential unless the conventionally-farmed portion of the parcel is larger than the residential portion of the parcel and it is not less than five acres in area. These presumptions may be rebutted by evidence received that the primary use of the parcel is not residential. For purposes of this guideline, **"conventional farm use"** refers to the tending of all major and minor Illinois field crops, pasturing, foresting, livestock, and other activities associated with basic agriculture.

If a parcel has a use combination of residential, conventional farm, and intensive farm, the determination of whether or not the primary use is residential must be made by applying the criteria for each type of farm use described in the preceding paragraphs and then weighing the result of all farm uses against residential use of the parcel.

If a parcel has a use combination of residential, nonresidential-nonfarm (*e.g.,* commercial, industrial), and any type of farm use, then the relative proportion of all uses should be considered in determining whether the primary use of the parcel is residential. For example, if the primary use of the parcel is commercial, the primary use of the parcel cannot be residential and any farmed portion of the parcel meeting the two-year requirement is entitled to a farmland assessment even though it may be smaller than the portion of the parcel used for residential purposes.

C Alternative soil mapping guideline. The department has consistently advocated the use of

Illinois Cooperative Soil Survey (ICSS) soil mapping (mapping prepared for county detailed soil surveys) for computing farmland assessments. The ICSS soil maps contain the level of accuracy needed to assure that soil productivity indexes and assessed values are accurate.

The Natural Resources Conservation Service (NRCS), the agency responsible for directing the ICSS program, is a producer of Order 2 soil surveys. Order 2 soil mapping (mapping prepared at a scale of 1:12,000 to 1:20,000) is regarded by the department as the largest, feasibly-manageable scale for which to conduct a reliable state mapping project. The ICSS does not produce Order 1 (mapping produced at a scale usually larger than 1:7,920) soil mapping for a county. Although Order 1 soil mapping could provide a more detailed account of the soils for a specific site than Order 2 mapping, its lack of national and state standards will often cause it to be less accurate.

Landowners may, however, challenge ICSS soil data (mapping) in a tax assessment complaint and submit alternative soil mapping which may not be prepared at the same scale or under the specifications and standards as ICSS soil mapping. When a complaint is filed, boards of review must decide whether evidence supports replacing ICSS soil mapping with alternative mapping. Evidence that supports substituting alternative soil mapping for ICSS soil mapping is the acceptance of such alternative mapping by the NRCS and a resulting change in the official record copy of the soil map. An official record copy soil map showing all approved soil surveys is maintained by the NRCS. Board of review decisions regarding the standing of alternative mapping should not be made without considering the expert opinion of the NRCS.

Through combined efforts of the department, NRCS, and the Illinois Agricultural Experiment Station (AES), the following mechanism has been developed which will give boards of review access to such expert opinion.

The chief county assessing officer should forward any alternative Order 2 soil mapping received in a complaint to the local NRCS field office. The NRCS field office will conduct an initial evaluation of the alternative soil mapping, and, as warranted, will forward the material to the NRCS area and/or state level (in consultation with the AES). The NRCS will determine if the alternative mapping warrants a change in the official record copy. Boards of review should give substantial weight to NRCS decisions when settling complaints.

Since NRCS evaluations will only be performed on alternative Order 2 soil mapping, according to this guideline, board of review rules should be amended to require that corresponding Order 2 soil mapping must accompany any Order 1 soil mapping submitted in a complaint. Boards of review can benefit greatly from an NRCS evaluation of Order 2 soil mapping.

Since ICSS soil maps identify soils as they occur on the landscape, boards of review should not replace ICSS soil mapping with any alternative mapping for areas smaller in size than a tax parcel. The entire tax parcel should be evaluated and mapped if alternative soil mapping is done.

D Use of a tract during the assessment year. Since real property is valued according to its condition on January 1 of the assessment year, a time when most farmland is idle, an assessor will often not know if a tract will no longer be used for farming. Therefore, circumstances occurring after January 1 may be taken into consideration to determine a parcel's tax status as farm or nonfarm. For example, if a typically cropped tract previously assessed as farmland has not been planted or used in any other qualified farm use during the assessment year and building construction has begun on the tract, the tract should **not** be assessed as farmland.

E Significance of primary use on a non-residential parcel. The primary use of a non-residential parcel does not have to be agricultural in order for a tract within the parcel to be assessed as a farm. The farmed portion of primarily commercial or industrial parcels is eligible for a farm assessment provided it qualifies under the statutory definition of farm and has qualified for the previous two years. For example, if a small farmed tract on an 80-acre industrial parcel meets the farm definition and has met the definition for the previous two years, the small tract should be assessed as farmland.

F Two-year eligibility requirement. The statutory requirement that land be in a farm use for the preceding two years applies to nonfarm converted-to-farm tracts for which there was no previous farming and not to tracts converted for the purpose of adding to existing farmland. For example, the two-year requirement would not apply when the dwelling on a farmed parcel is demolished and the land is farmed. The two-year requirement also does not apply to tracts assessed under the Forestry Development Act or land assessed as a vegetative filter strip.

G Non-published modern detailed soil mapping. Modern detailed soil maps prepared by the Natural Resources Conservation Service (USDA), are now complete in every county. Although the actual survey books are not yet published for every county, the mapping is finalized and available. Boards of review are advised to consider such detailed soil mapping when presented for appeal.

H Effect of commercial retailing of farm products on preferential assessment status. Eligibility for receiving the preferential farmland assessment depends solely upon a tract's conformity with the farm definition without regard to the retailing methods of agricultural products produced on the tract. For example, a pay-to-pick strawberry patch is eligible for a preferential farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Tracts devoted to nonfarm uses (*e.g.,* clubhouse, cabin), tracts where the use is not solely agricultural (*e.g.,* pasture also used for commercial horseback riding or camping), or tracts used for the sale of nonfarm products are not eligible for preferential treatment.

I Effects of gubernatorial proclamation — declaring county as State of Illinois disaster area. Unless stipulated, there is no farmland assessment relief associated with a disaster area proclamation. Any crop damage caused by flooding from such a disaster, should be compensated for through the county's flood debasement procedure.

J Use of ortho-photo base maps. Use of an orthophoto base map is neither mandated by statute nor required by the department. The department recognizes certain advantages associated with ortho-photography, but is also aware of hardships the additional expense of ortho-photography may impose on some local governments. The benefits of ortho-photography increase when the photo base map is used in a computer-assisted mapping system or geographic information system and increases further as the steepness and diversity of the terrain increases. Before deciding on a base map, a county should be sure that it is accurate enough to allow for proper matching of parcel boundaries and soil types. The law requires that cropland, permanent pasture, and other farmland be assessed according to its debased PI. This can only be accomplished when soil types are adequately identified and measured by land use.

K Effect of a designated Ag area on farmland assessments. The Agricultural Areas Conservation and Protection Act, 505 ILCS 5/1 *et seq.,* provides for the establishment of agricultural conservation and protection areas (commonly called "Ag Areas"). The establishment of an Ag area provides the following benefits:

- Landowners are protected from local laws or ordinances that would restrict normal farming practices, including nuisance ordinances.
- Protection from special benefit assessments for sewer, water, lights or nonfarm drainage (unless landowners are benefited) is provided.
- Land is protected from locally-initiated projects that would lead to the conversion of that land to other uses.
- State agencies may consider the existence of Ag Areas when selecting a site for a project; however, the Act does not prohibit these agencies from acquiring land in Ag Areas for development purposes.

When determining farmland eligibility, no special consideration is given to a tract due to its being located within a designated Ag Area.

L Comparing actual yields to formula yields when determining flood debasements. Sometimes the yields of flood-affected farms and upland farms of similar PIs are similar; but, once debased for flood, the flood-affected farms carry a lower assessment. In order to keep the PIs and assessments of flood-affected soils and similar-producing upland soils consistent, a proposal was presented for comparing actual yields to formula yields and not assigning a flood debasement when the yield of a particular soil meets or exceeds the average yield for the soil's PI. The department advises against comparing actual yields to formula yields as a way of determining if a flood debasement is warranted. The Farmland Assessment Law presupposes average yield potential under an average level of management. It would be inappropriate to penalize farmers who achieve higher-than-average yields through the employment of higher and costlier management practices. Refer to the instructions for flood debasement.

The Farmland Assessment Law establishes capitalized net income as the basis for the EAV of farmland. Each year, the net income is determined for each PI of cropland. The net income is then capitalized by the five-year Federal Land Bank rate to determine an agricultural economic value (AEV) for each PI. The AEV for each PI is then multiplied by $33^1/_3$ percent, the product of which is the EAV. A listing of the 2002 EAVs of cropland by PI is given in Table 1. By law, the EAV of permanent pasture should be at one-third and the EAV of other farmland should be at one-sixth of these values.

To assess cropland, permanent pasture, or other farmland, determine the PI of each soil type. Because wasteland is assessed based on its contributory value as described in the guidelines, it is not necessary to determine the PI of wasteland in a farm parcel.

The degree of difficulty and accuracy in assessing farmland is determined by the type of soil maps available. The easiest and most accurate soil map to use is the detailed soil map prepared by the *Natural Resources and Conservation Service* for modern detailed soil surveys. A modern detailed soil map is an aerial base map showing the delineation of each soil type based on numerous soil samples and other field and laboratory analyses. Currently, all 102 counties have been mapped. Previous updates to this manual have contained procedural steps and example assessments for implementing the farmland assessment law by the use of a soil association map. However, since modern detailed soil mapping is now available for all counties, there is no longer a need to publish detailed text pertaining to the implementation of soil association maps. By now, all counties should have started or already implemented their modern detailed soil mapping.

Through the 2004 assessment year, counties have the option of choosing either of two approved methods for assessing farmland. These methods are referred to as the **"individual soil weighting method"** and the **"weighted tract method."** The difference between the two methods is in the assessment computation weighting process. The individual soil weighting method weights a soil's assessed value by the number of acres of the soil. The weighted tract method weights a soil's PI by the number of acres of the soil. Studies show there is little or no difference in assessed value between the two methods when the terrain is level; but, as the terrain becomes rolling to rough, the difference becomes more significant. The department recommends a thorough examination of each method before a county chooses which method to use. Beginning with the 2005 assessment year only, the individual soil weighting method will be allowed for use in computing farmland assessments.

For the 2002 edition of this manual, procedures and illustrations for both the individual soil weighting method and the weighted tract method are presented in separate sections. Because Figure 1 and Tables 1, 2, and 3 pertain to both methods and must be referred to often; the tables are located between the Individual Soil Weighting Method and Weighted Tract Method sections of this manual.

Individual soil weighting method

Using a detailed soil survey

Procedural steps and example assessments for implementing the individual soil weighting method using a detailed soil survey are given in Steps 1 through 10.

Step 1 — Obtain adequate aerial base tax maps. This step can be accomplished by acquiring or developing a set of aerial base tax maps as outlined in the Tax Maps and Property Index Number section of the Illinois Real Property Appraisal Manual or the Illinois Tax Mapping Manual.

Step 2 — Obtain detailed soil maps showing the distribution of each soil type. Detailed maps are prepared by the Natural Resources Conservation Service (USDA), in cooperation with the University of Illinois. These maps provide an inventory of the soil types found in a specific area. The various soil types are delineated on the soil map and are numerically coded for identification.

Reproduce detailed soil maps as overlays and at the same scale as the aerial base tax maps. This will allow you to easily identify soil types by land-use category. Make any necessary corrections for map distortion.

The aerial base tax map is shown as Figure 1. The parcel used in this example is 01-29-400-001-0011. This parcel consists of 158 acres, all the land in the SE ¼ of section 29 south of the center line of the road. An overlay of the detailed soil survey map is shown on the aerial photograph.

Step 3 — Determine, from aerial photograph interpretation and on-site inspection of the parcel, the portions of the tract to be classified as cropland, permanent pasture, other farmland, wasteland, road, and homesite. Cropland, permanent pasture, and other farmland will each have an assessment based upon soil productivity. Refer to the land use guidelines to determine into which category a specific land use falls. Also determine which portions of the wasteland contribute to the productivity of the farm. Delineate all land-use categories on the aerial photograph.

It was determined that the uses listed under Figure 1 were present. As outlined in the guidelines, the farm building site and the grass waterway will be assessed as other farmland and the creek will be assessed as wasteland. The creek contributes to the productivity of the farm by facilitating the drainage of the entire parcel. The homesite is assessed based upon the market value just as any other residential land.

Steps 4, 5, and 6 are illustrated in the example after Step 6.

Step 4 — Determine the acreage of each soil type within each land use category that will be assessed by productivity. The measurement may be made using a planimeter, grid, electronic calculator, or computerized mapping system (GIS, autocad, map info, *etc.*) whereby the various maps (soil, aerial, tax) may be digitized or scanned-in as layers. For noncomputerized mapping systems, outline the areas to be measured when the detailed soil survey map is laid over the aerial tax map. For this example, the acreage of each soil type was measured using an electronic area calculator and is shown under the headings "Soil I.D." and "# Acres" on the PRC.

Step 5 — Determine soil PI ratings for each soil type identified. Table 2 lists the average management PI for soil types mapped in Illinois. To use the table, locate a soil's identification number in the left-hand column and find its corresponding PI in the right-hand column.

The PIs of the soil on this parcel listed below are also shown under the heading "PI" on the PRC.

Soil ID	PI	Soil ID	PI
8	57	107	120
17	100	119	90
43	130	280	100
74	117		

Note: For information on assigning PIs to soil complexes, refer to the section titled "*Soil complex adjustments."*

Step 6 — Adjust the PIs for slope and erosion. The indexes given in Table 2 are for 0 to 2 percent slopes and uneroded conditions. Therefore, adjust these PIs for the negative influence of actual slope and erosion conditions.

Table 3 shows percentage adjustments for common slope and erosion conditions for favorable and unfavorable subsoil. Soil types with unfavorable subsoils are indicated in Table 2 by an asterisk next to the soil number. To use Table 3, select the proper subsoil type and correlate the percentage slope on the left-hand side of the table with the degree of erosion at the top of the table. The number taken from this table is a percentage that is multiplied by the PI taken from Table 2. The result is the PI under average level management adjusted for slope and erosion.

Slope is indicated on a detailed soil survey map by the letter following the soil number. In this particular soil survey, the slopes are identified as follows:

Letter code	% slope used	% slope used in Table 3
no letter or A	0-2% slope	0%
B	2-4% slope	4%
C	4-7% slope	6%
D	7-12% slope	10%
E	12-18% slope	16%
F	18-35% slope	26%

Note: Letter codes and percentage of slope vary between detailed soil surveys and between soil types within surveys. **Consult your soil survey for the correct percentage of slope for each soil type.**

Because Table 3 cannot be used with slope ranges, use a central point of the slope ranges unless a better determinant of slope is available. For the slope ranges used in the example, the central points are given above.

Erosion is indicated on a detailed soil survey map by a number following the letter indicating slope. Erosion is indicated below.

No number or 1	**uneroded**
2	**moderate erosion**
3	**severe erosion**

Given the information above, the designation of a soil as 280C2 indicates soil #280 with 4-7 percent slope and moderate erosion.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as "C" slope "2" erosion, read down the "slope" column to 6 percent and across to the "moderate erosion" column to find the number 93, or 93 percent adjustment. Applying this 93 percent adjustment to the PI of soil #280 given in Table 2 results in a PI adjustment for slope and erosion of 93 for the 280C2 soil (100 x 93% = 93).

The designation of a soil as 8F indicates soil #8 with 18-35 percent slope and uneroded.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as "F" slope and uneroded, read down the "slope" column to 26 percent and across to the "uneroded" column to find the number 73 or 73 percent adjustment. Applying this adjustment to the PI of soil #8 given in Table 2 results in an adjusted PI of 42 for the 8F soil (57 x 73% = 42).

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The PI adjustments and the adjusted PIs of all soils in the parcel are shown under the headings “Adj. Factor(s)” and “Adj. P.I.” on the PRC.

Example — Steps 4, 5, and 6

Year **2002**

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Cert. Value	Asmt.
Cropland (Full EAV)	17	100		100	28		
	43	130		130	35		
	119D	90	0.95(S)	86	1		
	280B	100	0.99(S)	99	14		
	280C2	100	0.93 (S & E)	93	5		
	Subtotal:						
Permanent Pasture (1/3 EAV)							
	8F	57	0.73(S)	42	4		
	43	130		130	1		
	74	117		117	12		
	107	120		120	4		
	119D	90	0.95(S)	86	17		
	19E3	90	0.75(S&E)	68	4		
	280B	100	0.99(S)	99	6		
	280C2	100	0.93(S&E)	93	8		
	Subtotal:						
Other Farmland (1/6 EAV)							
	43	130		130	4		
	280C2	100	0.93(S&E)	93	3		
	Subtotal:						
	Contributory Wasteland 1/6 Lowest EAV						
	Non-Contributory Wasteland						
	Dedicated Roads						
	Total All Farmland						

Steps 7 through 10 are illustrated on the PRC example following Step 10.

Step 7 — Determine the EAV per acre of each soil type for each land use category. To do this, locate the adjusted PI of each soil type in Table 1. The EAV per acre for a soil type in the cropland category is found directly from the table. For soil types in the permanent pasture and other farmland categories, determine the EAV per acre for each soil in the same manner as for cropland; then, multiply this value times one-third for permanent pasture and one-sixth for other farmland.

For example, soil #17 in the cropland category has an adjusted PI of 100. By locating the PI of 100 in Table 1, the EAV per acre is found to be $159.93. To determine the EAV per acre for a soil included in the permanent pasture and other farmland categories, multiply the value as cropland by one-third and one-sixth respectively. Soil 119D in the permanent pasture category has an adjusted PI of 86 which has a cropland value from Table 1 of $81.09. After multiplying this value by one-third, the EAV for this soil in the permanent pasture category is equal to $27.03. The EAV per acre of a soil included in the other farmland category is determined by multiplying its value as cropland from Table 1 by one-sixth.

The six acres of creek are considered to contribute to the productivity of the farm and are assessed as contributory wasteland at one-sixth of the value of the lowest PI of cropland certified by the department. For 2002, the lowest PI of cropland certified by the department was 60. The EAV per acre for cropland of PI 60 is $10.84. The EAV per acre of the wasteland that is a creek is $10.84 $^1/_6$ x = 1.81 per acre. An EAV per acre of zero is assigned to both the two acres of non-contributory wasteland and the two acres of public road. All EAVs by soil type are shown under the heading “Cert. Val.” on the PRC.

Step 8 — Calculate the assessed value for each soil type in each land-use category by multiplying the EAV per acre (from in Step 7) by the number of acres for each corresponding soil type. For example, the assessed value for soil #43 in the cropland category is 35 (acres) x $375.78/acre = $13,152. These calculations are shown under the heading “Asmt.” on the PRC.

Step 9 — Subtotal the number of acres and assessed values of the soil types within each land-use category to obtain the total number of acres and total EAVs for the cropland, permanent pasture, and other farmland categories. In the example, the total EAV for the 83 acres of cropland is $20,513. These calculations are shown on the “Subtotal” line under their respective headings on PRC.

Step 10 — Determine the total EAV for farmland by adding the previously determined subtotals for cropland, permanent pasture, and other farmland to the assessed value of wasteland.

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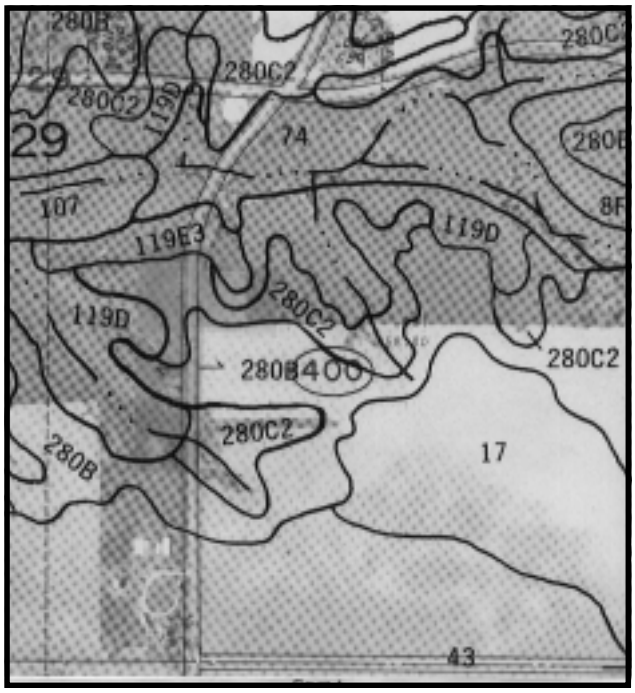
Example — Steps 7, 8, 9, and 10

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Year 2002 Cert. Value	Asmt.
Cropland (Full EAV)	17	100		100	28	159.93	4,478
	43	130		130	35	375.78	13,152
	119D	90	0.95(S)	86	1	81.09	81
	280B	100	0.99(S)	99	14	155.40	2,176
	280C2	100	0.93 (S & E)	93	5	125.24	626
	Subtotal:				83		20,513
Permanent Pasture (1/3 EAV)	8F	57	0.73(S)	42	4	3.61	14
	43	130		130	1	125.26	125
	74	117		117	12	90.70	1,088
	107	120		120	4	98.29	393
	119D	90	0.95(S)	86	17	27.03	460
	119E3	90	0.75(S&E)	68	4	6.28	25
	280B	100	0.99(S)	99	6	51.80	311
	280C2	100	0.93(S&E)	93	8	41.75	334
	Subtotal:				56		2,750
Other Farmland (1/6 EAV)	43	130		130	4	62.63	251
	280C2	100	0.93(S&E)	93	3	20.87	63
	Subtotal:				7		314
	Contributory Wasteland 1/6 Lowest EAV				6	1.81	11
	Non-Contributory Wasteland				2	0	0
	Dedicated Roads				2	0	0
	Total All Farmland				156		23,588



Use	Acres	Use	Acres
Cropland	83	Grass Waterway	3
Permanent Pasture	56	Wasteland	2
Farm Building Site	4	Creek	6
Homesite	2	Road	2

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Table 1

2002 Department Certified Values

Average management PI	EAV per acre	Average management PI	EAV per acre	Average management PI	EAV per acre
60	$ 10.84	85	77.15	110	221.62
61	11.80	86	81.09	111	228.60
62	12.78	87	86.63	112	235.66
63	13.74	88	92.92	113	242.80
64	14.76	89	99.20	114	250.01
65	15.74	90	105.68	115	257.30
66	16.78	91	112.25	116	264.66
67	17.78	92	118.83	117	272.11
68	18.84	93	125.24	118	279.62
69	19.87	94	130.31	119	287.21
70	20.82	95	135.45	120	294.88
71	21.74	96	140.64	121	302.63
72	25.70	97	145.88	122	310.45
73	29.67	98	150.92	123	318.36
74	33.62	99	155.40	124	326.32
75	37.58	100	159.93	125	334.38
76	41.54	101	164.51	126	342.51
77	45.51	102	169.12	127	350.70
78	49.46	103	174.87	128	358.99
79	53.40	104	181.32	129	367.34
80	57.36	105	187.85	130	375.78
81	61.33	106	194.44		
82	65.28	107	201.12		
83	69.22	108	207.88		
84	73.20	109	214.71		

Table 3

Slope — Erosion Adjustment Table

Percent of Slope	Favorable Subsoil			Slope	Unfavorable Subsoil		
	Uneroded	Moderate Erosion	Severe Erosion		Uneroded	Moderate Erosion	Severe Erosion
0	100	98	89	0	100	94	79
2	100	96	87	2	100	92	77
4	99	95	86	4	98	90	75
6	98	93	85	6	96	89	74
8	96	92	83	8	94	87	72
10	95	90	82	10	93	85	70
12	93	89	80	12	90	83	68
14	91	86	77	14	88	81	66
16	88	84	75	16	86	78	63
18	86	81	73	18	83	76	61
20	83	78	69	20	80	72	57
22	80	75	67	22	77	69	55
24	77	72	63	24	74	65	51
26	73	68	60	26	70	62	48
28	70	64	57	28	67	59	43
30	66	60	52	30	62	56	39
32	61	56	47	32	58	50	35
34	56	52	43	34	54	47	32
36	53	49	41	36	50	43	29
38	51	46	37	38	48	40	27
40	49	44	36	40	46	38	25
42	48	43	35	42	45	37	23
44	47	42	34	44	44	37	22
46	46	42	34	46	42	36	22

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Assessment of Farmland

Table 2

Productivity Indexes for Average Level Management

Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI
2	87	**68**	127	**142**	120	**212**	85	**286**	87	**341**	100	**398**	117
3	87	**69**	112	**144**	82	**213**	110	**287**	95	**342**	97	**400**	107
4	85	**70**	112	**145**	115	**214***	87	**288**	102	**343**	102	**401**	65
5	80	**71**	82	**146**	102	**217**	67	**290**	100	**344**	105	**402**	120
6*	55	**72**	97	**147***	80	**218**	92	**291**	97	**345**	90	**403***	40
7*	42	**73**	117	**148**	115	**219**	115	**292**	100	**346**	85	**404**	100
8	57	**74**	117	**149**	125	**221**	105	**293**	120	**347**	105	**405**	77
12	77	**75**	105	**150**	87	**223**	97	**294**	112	**348**	105	**406**	95
13	82	**76**	115	**151**	97	**224**	82	**295**	100	**349**	70	**410**	82
14*	80	**77**	125	**152**	125	**225**	62	**296**	105	**350**	117	**411**	95
15	87	**78**	110	**153**	115	**226**	80	**297**	105	**351**	127	**412**	110
16	85	**81**	127	**154**	130	**227**	97	**298**	90	**352**	100	**413**	67
17	100	**82**	105	**155***	67	**228***	67	**300**	107	**353**	110	**414**	102
18	100	**83**	87	**156**	90	**229**	70	**301***	80	**354**	60	**415**	105
19	85	**84**	65	**157**	107	**230**	85	**302**	105	**355**	92	**416**	105
21	92	**85**	52	**159**	90	**231**	117	**304**	80	**356**	120	**417***	62
22	87	**87**	82	**162**	115	**232**	110	**306**	120	**357**	87	**418***	72
23	82	**88**	67	**164**	90	**233**	100	**307**	95	**359**	95	**419**	97
24	100	**89**	82	**165**	85	**234**	115	**308**	100	**360**	87	**420**	90
25*	45	**91***	90	**166**	102	**235**	97	**310**	90	**361**	82	**421**	60
26	82	**92**	60	**167**	92	**236**	105	**311***	57	**362**	102	**422**	82
27	95	**93***	45	**171**	120	**238**	80	**312**	77	**363**	95	**424**	117
28	97	**96***	60	**172**	85	**239**	105	**313**	45	**365**	92	**425***	30
29	62	**97**	95	**173***	72	**240**	97	**314**	70	**366**	65	**426**	77
30	50	**98**	72	**174**	95	**241***	37	**315***	62	**368**	82	**427**	80
34	95	**100**	90	**175**	82	**242**	105	**316**	22	**369**	125	**428**	117
35	55	**102**	105	**176**	110	**243**	100	**317**	92	**370**	85	**429**	87
36	125	**103**	105	**178**	82	**244**	117	**318***	75	**371**	85	**430**	117
37	120	**104**	115	**179**	65	**248**	92	**319**	52	**372**	90	**431**	107
38	82	**105**	110	**180**	107	**249**	107	**320***	75	**373**	80	**432**	85
40	85	**107**	120	**182**	97	**250**	92	**321**	100	**374**	95	**434**	95
41	130	**108**	90	**183**	105	**256**	85	**322**	97	**375**	112	**435**	107
42	75	**109**	87	**184**	85	**257**	112	**323***	72	**376**	87	**436**	115
43	130	**112**	95	**188**	95	**259**	97	**324**	90	**377**	87	**439**	92
45	90	**113**	95	**189**	110	**261**	70	**325**	87	**378**	42	**440**	110
46	115	**115**	97	**190**	92	**262**	87	**326**	92	**379**	90	**442**	115
48	110	**116**	92	**191**	97	**264**	72	**327**	82	**380**	67	**443**	107
49	75	**119**	90	**192**	92	**265**	90	**328**	80	**381**	97	**445**	110
50	112	**120**	57	**193**	87	**266**	85	**329**	102	**382**	95	**446**	115
53	65	**122***	67	**194**	80	**268**	110	**330**	100	**386**	115	**447**	90
54	47	**125**	110	**197**	117	**271**	82	**331**	112	**387**	105	**448**	90
55	110	**127**	105	**198**	127	**272**	100	**332**	72	**388**	102	**450**	112
56	115	**128**	102	**199**	120	**274**	90	**333**	107	**389***	40	**451**	127
57	100	**130**	97	**200**	92	**275**	127	**334**	100	**390***	77	**452**	102
59	127	**131**	85	**201**	90	**277**	120	**335**	80	**391**	85	**453**	102
60	100	**132**	100	**204**	97	**278**	107	**336**	105	**393***	67	**454**	107
61	115	**134**	95	**205**	82	**279**	100	**337**	87	**394**	80	**456**	97
62	110	**136**	82	**206**	100	**280**	100	**338***	70	**395**	95	**457**	65
64	97	**138**	112	**208**	92	**282**	45	**339***	50	**396**	100	**458**	87
67	110	**141**	87	**210**	100	**284**	122	**340***	65	**397***	42	**459**	115

*Indicates unfavorable subsoil.

Rural Section
Assessment of Farmland

Table 2

Productivity Indexes for Average Level Management

Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI	Soil ID	PI
460	82	**548***	82	**615**	37	**761***	50	**888**	67	**942**	75	**992***	76
461	90	**549***	82	**619**	97	**763**	107	**889**	75	**943**	87	**993**	83
462	85	**551***	45	**620***	62	**764**	82	**890**	45	**944***	77	**994***	82
463	82	**552**	125	**621**	80	**765**	82	**891**	77	**945***	65	**995**	95
464	80	**553**	95	**627**	85	**767**	112	**892**	122	**946***	52	**996***	80
465	92	**554**	87	**628**	65	**768**	62	**893**	120	**947**	77	**997***	52
466	102	**555**	82	**631**	90	**769***	72	**895**	95	**948***	70	**998**	67
467*	72	**556***	77	**633**	95	**770**	65	**896**	70	**949***	72	**999**	85
468	100	**560***	62	**637**	105	**771**	85	**898**	67	**950**	70		
469	90	**561**	70	**638**	100	**772**	95	**899**	100	**951**	82		
470*	80	**562**	100	**639**	77	**774**	80	**900***	55	**952**	82		
471	30	**563**	77	**640**	82	**776**	112	**901**	130	**953***	77		
472	75	**564**	90	**647**	95	**777**	77	**902**	130	**954**	80		
473	102	**565**	85	**648**	115	**779**	55	**903**	100	**955***	30		
474	65	**566**	85	**649**	120	**780**	82	**904**	105	**956***	63		
475	90	**567**	100	**650**	112	**781**	97	**905**	57	**957***	70		
479	70	**568**	57	**656**	100	**782**	105	**908**	57	**958***	52		
480	97	**569**	60	**660***	57	**783**	72	**909**	90	**959**	67		
481	127	**570**	92	**661**	97	**784**	30	**910**	90	**960**	77		
482	92	**571**	102	**665**	75	**785**	35	**911**	77	**961**	68		
483	95	**572**	95	**670**	60	**786***	55	**912***	77	**962**	75		
484	125	**573**	80	**673**	80	**787**	87	**913***	72	**963**	72		
485	117	**574**	85	**682**	105	**789**	92	**914***	47	**964***	65		
486	85	**575**	107	**683**	127	**791**	110	**915***	75	**965**	82		
490	120	**576**	75	**684**	117	**792**	117	**916***	75	**966**	95		
493	97	**578**	95	**685**	90	**819**	42	**917**	65	**967***	55		
494	97	**579***	42	**689**	47	**820***	60	**918***	70	**968**	95		
495	110	**580**	87	**690**	62	**823**	72	**919***	57	**969***	55		
496	102	**581***	60	**691**	45	**824**	65	**920**	74	**970***	72		
501	72	**583**	92	**696**	90	**825**	47	**921**	87	**971***	50		
503	85	**584***	50	**697**	105	**844**	80	**922***	90	**972***	75		
504*	40	**585**	77	**698**	97	**850**	70	**923**	97	**973***	57		
505*	52	**587**	112	**706**	70	**851***	82	**924**	110	**974**	85		
506	90	**588**	75	**709**	85	**852***	80	**925**	82	**975**	82		
508	105	**589**	90	**723**	100	**853**	87	**926**	117	**976***	20		
509	75	**590**	95	**727**	85	**856**	100	**927***	65	**977***	38		
511*	45	**591**	95	**728**	95	**857***	70	**928**	77	**978**	100		
513	75	**592**	105	**731**	90	**858**	115	**929***	72	**979**	95		
516	87	**594**	115	**732**	72	**859***	65	**930**	62	**980**	87		
517	75	**597**	117	**740**	120	**860***	70	**931**	70	**981***	92		
518	95	**598**	57	**741**	55	**861***	52	**932**	90	**982***	82		
524	90	**599**	40	**742**	87	**870**	95	**933**	72	**983***	80		
531	87	**600**	120	**743**	90	**871**	52	**934***	72	**984**	102		
537*	95	**601**	85	**745***	90	**872**	80	**935**	75	**985**	82		
539	107	**602**	90	**746**	87	**873***	57	**936**	85	**986***	45		
540	72	**603**	115	**750**	87	**874**	72	**937**	77	**987**	45		
541	107	**605***	45	**751**	87	**880**	72	**938***	82	**988**	55		
542	117	**606**	37	**752**	85	**881**	77	**939***	67	**989**	110		
546	87	**609**	117	**753**	82	**882**	80	**940***	72	**990***	66		
547	80	**614**	107	**755**	42	**887**	57	**941**	97	**991**	77		

*Indicates unfavorable subsoil.

Weighted tract method
Using a detailed soil survey

Procedural steps and example assessments for implementing the weighted tract method using a detailed soil survey are given in Steps 1 through 11.

Step 1 — Obtain adequate aerial base tax maps. This step can be accomplished by acquiring or developing a set of aerial base tax maps as outlined in the Tax Maps and Property Index Number section of the Illinois Real Property Appraisal Manual or the Illinois Tax Mapping Manual.

Step 2 — Obtain detailed soil maps showing the distribution of each soil type. Detailed maps are prepared by the Natural Resources Conservation Service (USDA), in cooperation with the University of Illinois. These maps provide an inventory of the soil types found in a specific area. The various soil types are delineated on the soil map and are numerically coded for identification.

Reproduce detailed soil maps as overlays and at the same scale as the aerial base tax maps to provide for ease of identification of soil types by land-use category. Make any necessary corrections for map distortion.

The aerial base tax map is shown as Figure 1. The parcel to be used for this illustration is 01-29-400-001-0011. This parcel consists of all land in the SE ¼ of section 29 south of the center line of the road and totals 158 acres. An overlay of the detailed soil survey is shown on the aerial photograph.

Step 3 — Determine, from the aerial photograph interpretation and on-site inspection of the parcel, the portions of the tract to be classified as cropland, permanent pasture, other farmland, wasteland, road, and homesite. Cropland, permanent pasture, and other farmland will each have an assessment based upon soil productivity. Refer to the land-use guidelines to find categories to determine a specific land use. Also, determine which portions of the wasteland contribute to the productivity of the farm. Delineate all land-use categories on the aerial photograph.

It was determined that the uses listed under Figure 1 were present. As outlined in the guidelines, the farm building site and the grass waterway will be assessed as other farmland and the creek will be assessed as wasteland. The creek contributes to the productivity of the farm by facilitating the drainage of the entire parcel. The homesite is assessed based upon the market value, just as any other residential land.

Steps 4 through 7 are illustrated on the PRC example following Step 7.

Step 4 — Determine the acreage of each soil type within each land-use category that will be assessed by productivity. The measurement may be made using a planimeter, grid, electronic calculator or computerized mapping system (GIS, autocad, map info, *etc.*) whereby the various maps (soil, aerial, tax) may be digitized or scanned-in as layers. For noncomputerized mapping systems, outline the areas to be measured when the detailed soil survey map is laid over the aerial tax map. For this example, the acreage of each soil type was measured using an electronic area calculator and is shown under the headings “Soil ID” and “# Acres” on the PRC.

Step 5 — Determine soil PI ratings for each soil type identified. Table 2 lists the average management PI for soil types mapped in Illinois. To use the table, locate a soil’s identification number in the left-hand column and find its corresponding PI in the right-hand column.

The PIs of the soil on this parcel listed below are also shown under the heading “P.I.” on the PRC.

Soil ID	PI	Soil ID	PI
8	57	107	120
17	100	119	90
43	130	280	100
74	117		

Note: For information on assigning PIs to soil complexes, refer to the following section titled *“Soil complex adjustments.”*

Step 6 — Adjust the PIs for slope and erosion. The indexes given in Table 2 are for 0 to 2 percent slope and uneroded conditions. Therefore, adjust these PIs for the negative influence of actual slope and erosion conditions.

Table 3 shows percentage adjustments for common slope and erosion conditions for favorable and unfavorable subsoil. Soil types with unfavorable subsoils are indicated in Table 2 by an asterisk next to the soil number. To use Table 3, select the proper subsoil type and correlate the percentage slope on the left-hand side of the table with the degree of erosion at the top of the table. The number taken from this table is a percentage that is multiplied by the PI taken from Table 2. The result is the PI under average level management adjusted for slope and erosion.

Slope is indicated on a detailed soil survey map by the letter following the soil number. In this particular soil survey, the slopes are identified as follows:

Letter code	% slope used	% slope used in Table 3
no letter or A	0-2% slope	0%
B	2-4% slope	4%
C	4-7% slope	6%
D	7-12% slope	10%
E	12-18% slope	16%
F	18-35% slope	26%

Note: Letter codes and percentage of slope vary between detailed soil surveys and between soil types within surveys. **Consult your soil survey for the correct percentage of slope for each soil type.**

Because Table 3 cannot be used with slope ranges, use a central point of the slope ranges unless a better determinant of slope is available. For the slope ranges used in the example, the central points are given above.

Erosion is indicated on a detailed soil survey map by a number following the letter indicating slope. Erosion is indicated below.

No number or 1	**uneroded**
2	**moderate erosion**
3	**severe erosion**

Given the information above, the designation of a soil as 280C2 indicates soil #280 with 4-7 percent slope and moderate erosion.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as “C” slope “2” erosion, read down the “slope” column to six percent and across to the “moderate erosion” column to find the number 93 or 93 percent adjustment. Applying this 93 percent adjustment to the PI of soil #280 given in Table 2 results in a PI adjusted for slope and erosion of 93 for the 280C2 soil (100 x 93% = 93).

The designation of a soil as 8F indicates soil #8 with 18-35 percent slope and uneroded.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as “F” slope and uneroded, read down the “slope” column to 26 percent and across to the “uneroded” column to find the number 73 or 73 percent adjustment. Applying this adjustment to the PI of soil #8 given in Table 2 results in an adjusted PI of 42 for the 8F soil (57 x 73% = 42).

The PI adjustment and the adjusted PIs of all soils in the parcel are shown under the headings “Adj. Factor(s)” and “Adj. P.I.” on the PRC.

Step 7 — Calculate the weighted average PIs for cropland, permanent pasture, and other farmland.

Instructions for these calculations are below.

- Determine the contribution of each soil by multiplying the acreage of each soil by the adjusted PI found in Step 6. For example, soil #17 has an adjusted PI of 100 and equals 28 acres of the cropland. The contribution of soil #17 is 100 PI x 28 acres = 2,800. The contribution of soil 280C2 is 93 PI x 5 acres = 465. Contributions are shown under the heading “Cont.” on the PRC.
- For each use category, add the contributions of each soil to obtain the total contributions.
- For each use category, calculate the weighted average PI. Divide the total contribution for each category by the total number of acres in the category. For cropland, the contributions total 9,287 and the acreages total 83. The weighted average PI of cropland is 9,287 ÷ 83 ac. = 112 PI. The weighted average PI for permanent pasture is 5,254 ÷ 56 ac. = 94 PI and for other farmland is 799 ÷ 7 ac. =114 PI. The computations are shown on the appropriately labeled portion of the PRC below.

Example — Steps 4, 5, 6, and 7

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Contrib.
Cropland	17	100		100	28	2,800
	43	130		130	35	4,550
	119D	90	0.95(S)	86	1	86
	280B	100	0.99(S)	99	14	1,386
	280C2	100	0.93 (S & E)	93	5	465
	Total Contrib.	9,287	÷	83	Ac. =	112 Wtd. PI
Permanent Pasture	8F	57	0.73(S)	42	4	168
	43	130		130	1	130
	74	117		117	12	1,404
	107	120		120	4	480
	119D	90	0.95(S)	86	17	1,462
	119E3	90	0.75(S&E)	68	4	272
	280B	100	0.99(S)	99	6	594
	280C2	100	0.93(S&E)	93	8	744
	Total Contrib.	5,254	÷	56	Ac. =	94 Wtd. PI
Other Farmland	43	130		130	4	520
	280C2	100	0.93(S&E)	93	3	279
	Total Contrib.	799	÷	7	Ac. =	114 Wtd. PI

Steps 8 through 11 are illustrated on the PRC after Step 11.

Step 8 — Enter the acreage and weighted PI's calculated in Step 7 shown under the headings "Acres" and "WT. PI" on the PRC.

Step 9 — For each use category, take the weighted average PI into the chart of EAV per acre certified for the assessment year (Table 1). The EAV per acre of cropland is found directly from the chart. The EAV per acre of permanent pasture and other farmland is found by taking the weighted average PI for each into the chart to find the EAV per acre as cropland. This value is then multiplied by one-third or one-sixth to obtain the EAV for permanent pasture or other farmland, respectively.

Use	P.I.	EAV/ac as Cropland	EAV/ac
Cropland	112	$235.66	$235.66
Perm. pasture	94	130.31	43.44
Other farmland	114	250.01	41.67

To find the EAV per acre for permanent pasture, multiply its value as cropland by one-third — $130.31 x $^1/_3$ = $43.44. To determine the EAV per acre of the other farmland, multiply its value as cropland by one-sixth — $250.01 x $^1/_6$ = $41.67.

The six acres of creek are considered to contribute to the productivity of the farm and are assessed as contributory wasteland at one-sixth of the value of the lowest PI of cropland certified by the department. For 2002, the lowest PI of cropland certified by the department was 60. The EAV for cropland of PI 60 is $10.84. The EAV per acre of the wasteland which is a creek is $10.84 x $^1/_6$ = $1.81/acre. An EAV per acre of zero is assigned to both the two acres of non-contributory wasteland and the two acres of public road. These calculations are shown under the heading "EAV/AC" on the PRC.

Step 10 — Determine the EAV for each land use category. Multiply the EAV per acre for each category by the number of acres in each category. For example, the EAV of cropland is 83 (ac.) x $235.66/ac.= $19,560. These calculations are shown under the heading "EAV" on the PRC.

Step 11 — Determine the total EAV for all farmland. Add the EAVs of cropland, permanent pasture, other farmland, and wasteland.

Example — Steps 8, 9, 10, and 11

2002					
Use		Acres	WT. PI	EAV/AC	EAV
Cropland		83	112	235.66	$19,560
P. Past.	1/3	56	94	43.44	2,433
Other Frmlnd	1/6	7	114	41.67	292
Cont. Waste	1/6L	6		1.81	11
Non-Cont. Waste		2		0	0
Road		2		0	0
Total		156			22,296

Use	Acre	Value	Level	Assessed
Homesite				
Res. Buildings				
Farm Buildings			$33^1/_3$	

Soil complex adjustments

Occasionally, two or more soils occur together in a pattern that is too intricate for the individual soils to be delineated on the soil map at the scale being used. These groups of soils are called soil complexes. When this situation occurs, the PI of the complex is calculated by weighting or averaging the individual indexes of the soils in the complex. When the percentage of each type of soil in the complex is known, a weighted PI is calculated. The method for weighting is outlined below using the Cisne-Huey complex for a county in which percentages of each soil is known. If the percentages of each soil type cannot be obtained, the PIs for the individual soil types may be averaged to get a PI for the complex.

Cisne - Huey	Prod. Index	x	Percent	=	Contribution		
Cisne (2)	87	x	60%	=	52.2		
Huey (120)	57	x	40%	=	22.8		
Total			100%		75.0	=	PI

Rural Section

Assessment of Farm Homesites and Rural Residential Land

A farm homesite is the part of the farm parcel used for residential purposes and includes the lawn and land on which the residence and garage are situated. Areas in gardens, non-commercial orchards, and similar uses of land are also included.

Rural residential land may include farmland that is incidental to the primary residential use. It is generally comparable in value to the farm homesite. Both are subject to the state equalization factor and both should be assessed at the same percentage of market value as urban property. Whenever possible, use the sales comparison approach to value farm homesites and rural residential land.

The assessment of a farm homesite is demonstrated by continuing the assessment of parcel 01-29-400-001-0011. This parcel has a two-acre homesite that is assessed using the sales comparison approach. The following sales of comparable rural residential land were found.

Sale No.	Sale price	Acres	Price per acre
1	$ 6,000	1	$6,000
2	27,000	5	5,400
3	11,500	2	5,750
4	9,000	1.5	6,000
5	9,000	1.5	6,000

This data strongly indicate a market value of $6,000 per acre for farm homesites and for rural residential land. The homesite is valued at

$6,000 per acre x 2 acres = $12,000

The $6,000 market value of the homesite is debased to the level of assessments for urban property in the jurisdiction. In this jurisdiction, the level of assessments is $33^{1}/_{3}$ percent. Therefore, the assessed value is

$6,000 x 2 acres x $33^{1}/_{3}$ percent = $4,000

A summation of the land assessment for parcel 01-29-400-001-0011 is given.

Individual soil weighting method

Year **2002**

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Cert. Value	Asmt.
Cropland (Full EAV)	17	100		100	28	159.93	4,478
	43	130		130	35	375.78	13,152
	119D	90	0.95(S)	86	1	81.09	81
	280B	100	0.99(S)	99	14	155.40	2,176
	280C2	100	0.93 (S & E)	93	5	125.24	626
	Subtotal:				83		20,513
Permanent Pasture (1/3 EAV)	8F	57	0.73(S)	42	4	3.61	14
	43	130		130	1	125.26	125
	74	117		117	12	90.70	1,088
	107	120		120	4	98.29	393
	119D	90	0.95(S)	86	17	27.03	460
	19E3	90	0.75(S&E)	68	4	6.28	25
	280B	100	0.99(S)	99	6	51.80	311
	280C2	100	0.93(S&E)	93	8	41.75	334
	Subtotal:				56		2,750
Other Farmland (1/6 EAV)	43	130		130	4	62.63	250
	280C2	100	0.93(S&E)	93	3	20.87	63
	Subtotal:				7		313
Contributory Wasteland 1/6 Lowest EAV					6	1.81	11
Non-Contributory Wasteland					2	0	0
Dedicated Roads					2	0	0
Total All Farmland					156		23,587

Weighted tract method

2002					
Use		Acres	WT. PI	EAV/AC	EAV
Cropland		83	112	235.66	$19,560
P. Past.	1/3	56	94	43.44	2,433
Other Frmlnd	1/6	7	114	41.67	292
Cont. Waste	1/6L	6		1.81	11
Non-Cont. Waste		2		0	0
Road		2		0	0
Total		156			22,296

Use	Acre	Value	Level	Assessed
Homesite				
Res. Buildings				
Farm Buildings			$33^{1}/_{3}$	

Rural Section
Assessment of Farm Homesites and Rural Residential Land

Assessment of farm residences

Assess farm residences according to market value in the same manner as urban residences are assessed. Refer to the Residential section of the Illinois Real Property Appraisal Manual for valuation of farm residences.

Assessment of farm buildings

The valuation of farm buildings is the final component in the assessment of farm real estate. The law requires farm buildings, which contribute in whole or in part to the operation of the farm, to be assessed as part of the farm. They are valued upon the current use of those buildings and their respective contribution to the productivity of the farm. Farm buildings are assessed at $33^1/_3$ percent of their contributory value. The state equalization factor is not applied to farm buildings.

Valuation of farm buildings based upon contribution relies on theory as well as reality. Farm buildings are usually an integral part of the farm. When farms are sold, the land and improvements are valued together. The portion of this value attributable to farm buildings depends upon the degree to which they contribute to farming operations. Some farm buildings, even though they are in good physical condition, may play a minor role in the operation of the farm and have little value. These same buildings on another farm may be vitally important to the farming operation. The value of the farm buildings in these two instances is different.

The sales comparison, or market, approach and income approach to value are difficult to apply. The sales comparison, or market, approach is inadequate because farm buildings are rarely sold in isolation. The land and buildings are considered together in valuing the farm. The same problem arises in using the income approach. It is difficult to attribute a portion of the farm income solely to the buildings.

Value must be based on cost. This entails a third problem — depreciation. Since most farm buildings are constructed in the hopes of increasing efficiency or productivity, the undepreciated cost of the building will approximate market value when the building is new. The undepreciated cost of the building may be quite different than the value as the building ages. This difference between actual cost of replacement and the value of the building is **depreciation**.

Replacement cost is the cost of replacing an existing structure with an equally desirable structure having similar, if not the same, utility. The difference between replacement cost and **reproduction cost** is essentially that reproduction cost is the cost of constructing a replica of the building with the same design, materials, and quality of workmanship, while replacement cost is the cost of a contemporary building of equal utility. The concept of replacement cost evolves from the **Principle of Substitution** that value of property is no more than the cost of acquiring an equally desirable substitute. Replacement cost is the upper limit of building value.

Depreciation is the difference between the RCN and current value. Depreciation can be in the form of physical deterioration, functional obsolescence, or economic obsolescence.

Physical deterioration is a loss in the physical ability of a building to withstand normal use. Deterioration results from use, wear and tear, structural defects, and decay. Physical depreciation is observable and identifiable.

Functional obsolescence is a loss in value due to characteristics of the building which cause a failure of the building to serve the purpose for which it was intended. Inadequacy may result from poor design, surplus capacity, and changes in farming techniques. Functional inadequacy causes a loss in desirability and usefulness.

Economic obsolescence is a loss in value due to changes in the economic environment of the farm. Economic obsolescence results from external influences such as land-use changes, government regulations, and farm market conditions. Economic obsolescence causes loss in desirability and utility.

Depreciation reflects loss in value due to all possible factors. Value of contribution to productivity can be determined by deducting all depreciation from replacement costs. This value will reflect such factors as improper design (functional obsolescence), neglect of repairs (physical deterioration), and more stringent government regulations (economic obsolescence).

Estimation of farm buildings' contribution to the operation of the farm first requires a thorough inspection of the buildings. The inspection should include the structural components of the buildings and their functional capacity. Record the following structural details:

- measurements,
- excavation,
- foundation,
- framing exterior walls,
- floors,
- roof,
- interior partitions,
- electric wiring,
- plumbing,
- heating,
- ventilation,
- built-in equipment, and
- any other permanent features.

Functional features to note include

- relative location,
- current use,
- capacity (*e.g.* too large, too small),
- design, and
- other possible uses.

Physical deterioration is observed during the inspection of the property. Economic obsolescence will require investigation into such factors as government regulation changes, current market fluctuations, and any land use changes of the surrounding property.

The cost tables in this section are provided as an aid in the development of replacement costs of typical farm buildings. The application of the cost tables is much the same as the cost tables in other sections of the manual. Select the costs for a comparable building and adjust this cost for variations from the model buildings.

To estimate the farm building's contribution to productivity of the farm, follow the procedure below.

Step 1
Estimate RCN of the building, in its current use.

- Measure the square feet of area being used.
- Decide the type of structure that provides the same utility for the current use.
- Multiply the square foot area by the replacement cost per square foot for a building of the same utility.

This step in the procedure allows for both function and economic depreciation. Remember that the existing type of structure may well provide the highest utility.

Step 2
Estimate the remaining physical life of the existing structure. This step allows for physical depreciation.

Step 3
Compute REL factor.

- Select a typical life expectancy figure from the typical life expentancies table on Page 121 for the existing structure.
- Divide the remaining physical life by typical life expectancy, giving REL.

Step 4
Multiply the RCN by the REL factor to find the value of the farm building according to its contribution to the productivity of the farm. **Remember, this procedure does not apply to farm residences.**

Example — farm building

This farm building is one of the buildings pictured in the example PRC-2 in this section. It is an enclosed pole frame building that is used for implement storage. Your observations are:

- Physical condition and the location and structure is good and the building is being put to its best use.
- Based upon these observations, you have determined that this building has 10 years of remaining physical life.
- The C grade building is 36' wide, 54' long, and 12' high.

To estimate the contribution to the productivity of the farm, follow this procedure.

Step 1
Estimate the RCN of the building, in its current use.

- Area used is 36' x 54' = 1,944 SF
- Multiply the square foot area by the replacement cost per square foot.

1,944 SF x $7.55/SF = $14,677 RCN

Step 2
Remaining physical life of existing structure is ten years.

Step 3
Compute the REL factor.

- Determine that the life expectancy of the pole frame building from the Typical life expectancy table is 20 years.
- Divide the remaining physical life by the life expectancy.

8 years ÷ 20 years = 0.40 or 40% REL

Step 4
Multiply the RCN by the REL factor to find the value of the pole building according to its contribution to the productivity of the farm.

$14,677 RCN x 0.40 REL = $5,871

Rural Section

Assessment of Farm Homesites and Rural Residential Land

Summary

Since the passage of the Farmland Assessment Law (P.A. 82-121) in 1981, the assessment of farmland has been based upon net income to the farmland as determined by land productivity and use. Land use is determined through the use of aerial photographs and visual inspection. Land productivity is determined through the use of soil maps, productivity indexes, and all other available data.

Farmland is separated into the four categories — cropland, permanent pasture, other farmland, and wasteland. Cropland, permanent pasture, and other farmland is assessed based upon PI which involves the identification of soil types; selection of PIs for average level management; adjustment of PIs for slope, erosion, and subsoil conditions; measurement of areas of soil types; selection of per acre assessed values for individual soil types or for weighted PIs from the table of values certified each year by the Illinois Department of Revenue; adjustment of assessed values for land use; and summation of assessed values for all farmland. Wasteland is assessed based on its contributory value.

Rural residential land and farm homesites are appraised according to market value. Customary appraisal procedures, such as the sales comparison, or market, approach and the income approach, are used in the valuation of these types of rural land. Farm residences are valued as part of the farm, using the same methodology as urban residences.

Farm buildings are valued according to current use and contribution to the productivity of the farm. All buildings are inspected, measured, and sketched on a PRC. In most cases, they are shown in the sketch space in their proper relative location to each other. Buildings are numbered consecutively with the number designation carried over to a summary of buildings, types, sizes, general descriptions, and tabulation of values.

Building replacement costs are computed from cost schedules developed for each type of structure and used uniformly throughout the jurisdiction. Depreciation allowances are carefully determined based upon the condition, desirability, and degree of usefulness of each structure. The total of all building valuations should represent the value which their presence contributes to the productivity of the farm.

Property Record — Farm — Individual Soil Weighting Method

Ownership/Mailing Address & Abbr. Legal

Individual soil weighting method

All land in the SE 1/4 of Section 29 south of the center line road

Zoning	Card No.	Township	Vol.	Tax Code	Area	Sect.	Block	Parcel	Unit
	1 of 1				01	29	400	001	0011

Division	Record of Ownership	Date	Deed Stamp	Sale Price

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Year 2002 Cert. Value	Year 2002 Asmt.	Year _____ Cert. Value	Year _____ Asmt.	Year _____ Cert. Value	Year _____ Asmt.	Year _____ Cert. Value	Year _____ Asmt.	Year _____ Cert. Value	Year _____ Asmt.	Year _____ Cert. Value	Year _____ Asmt.
Cropland (Full EAV)	17	100		100	28	159.93	4,478										
	43	130		130	35	375.78	13,152										
	119D	90	0.95(S)	86	1	81.09	81										
	280B	100	0.99(S)	99	14	155.4	2,176										
	280C2	100	0.93 (S & E)	93	5	125.24	626										
	Subtotal:				83		20,513										
Permanent Pasture (1/3 EAV)	8F	57	0.73(S)	42	4	3.61	14										
	43	130		130	1	125.26	125										
	74	117		117	12	90.70	1,088										
	107	120		120	4	98.29	393										
	119D	90	0.95(S)	86	17	27.03	460										
	119E3	90	0.75(S&E)	68	4	6.28	25										
	280B	100	0.99(S)	99	6	51.80	311										
	280C2	100	0.93(S&E)	93	8	41.75	334										
	Subtotal:				56		2,750										
Other Farmland (1/6 EAV)	43	130		130	4	62.63	251										
	280C2	100	0.93(S&E)	93	3	20.87	63										
	Subtotal:				7		314										
Contributory Wasteland 1/6 Lowest EAV					6	1.81	11										
Non-Contributory Wasteland					2	0	0	0	0	0	0	0	0	0	0	0	0
Dedicated Roads					2	0	0	0	0	0	0	0	0	0	0	0	0
Total All Farmland					156		23,588										

	No. Acres	Value	Level	Asmt.	Value	Level	Asmt.	Value	Level	Asmt.	Value	Level	Asmt.	Value	Level	Asmt.	Value	Level	Asmt.
Homesite																			
Residential Bldgs.																			
Farm Bldgs.			33 1/3			33 1/3			33 1/3			33 1/3			33 1/3			33 1/3	

PRC-1F (R-6/99) IL-492-1154

Rural Section
Sample Appraisals

Building Record — Residential — Rural (Property — Type 1)

Occupancy

1 Vacant Lot	2 Dwelling	3 Other	4 Mobile Home	5 A Frame	6 Summer Home	7 Apt.
	②					

Living Accommodations

Total rooms	Bedrooms	Family room
7	3	

Foundation

"Msy. Wall — Pier

Basement

1 Full	3 Crawl	4 Slab
①		

Area without bsmt. SF

Heating

1 None	2 Central	3 Air condition	4 Other
	②		

Warm air	
Hot water/Steam	✓
Floor furnace	
Unit heaters	
Other	

Plumbing

Standard (5)	✓
Bathroom (3)	
Half bath (2)	
Sink/Lavatory water closet	

Attic

1 None	2 Unfinished	3 Part	4 Full

% finished

Exterior walls

Wood/~~stucco/aluminum/vinyl siding~~	✓
Concrete block	
Brick/stone	
Other	

Roof

Shingle - asphalt/asbestos/wood	✓
Slate/tile	
Composition	
Other	

Floors

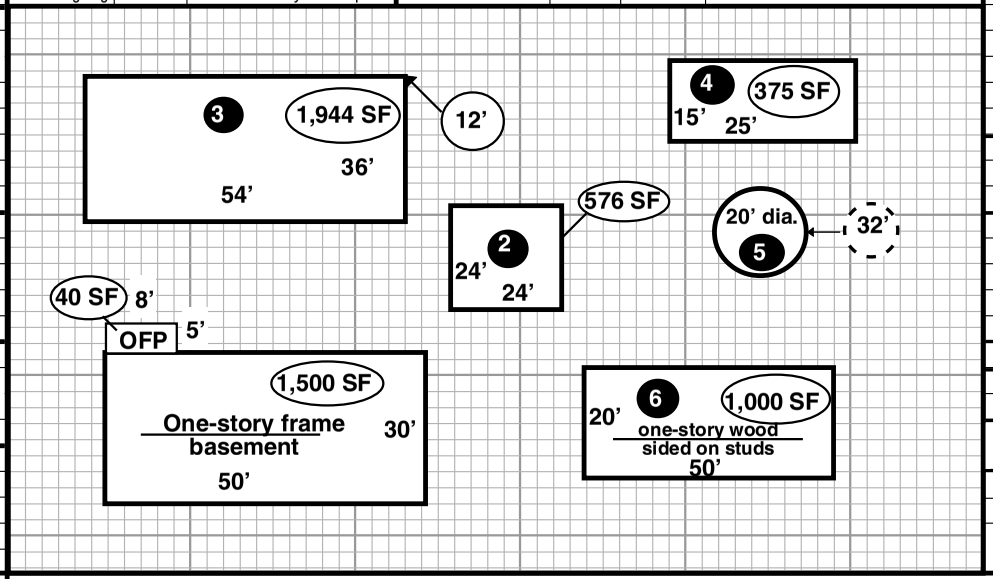
	B	1	2	3	
Concrete	✓				
Wood					
Tile		✓			
Carpet		✓			

Interior Finish

	B	1	2	3	
Plaster/dry wall		✓			
Fiberboard					
Paneling					

Features	SF	Quality	Type
Pt. Msy. Trim			Brk.[1] Stone[2] Art[3]
Finished Basement			Living
			Recreation
Fireplaces	#		Stacks #
Integral garage			On grade[1] Below[2]
Attached garage			Frm.[1] Msy.[2] Carport[3]

Condo. Comm.	Porch	40	SF	(OFP[1])	EFP[2]	OMP[3]	EMP[4] 2-Sty.[5]
Prorated %	Porch		SF	OFP[1]	EFP[2]	OMP[3]	EMP[4] 2-Sty.[5]
With:	Porch		SF	OFP[1]	EFP[2]	OMP[3]	EMP[4] 2-Sty.[5]
	Wd. deck		SF	Wood deck[6]			



Remodeled	Sold Date Mo. Day Yr.
NH	Amount $
Memo	

Age	34	Adj. Age	34
CDU	Average		
Grade	C		

Dwelling Computations

1	Sty. FR	Constr.	1500	SF
	Sty.	Constr.		SF

	1,500 SF	$ 83,250
Basement		
Heating/Central air		
Sched. comb.		
Plumbing + -		
Attic		
Porches		+1,300
Attch./Integral garage + -		
Total		84,550
Grade C		1.00
Total		84,550
Other features		
Pt. msy. walls		
Fireplace		
Finished basement		
Total		84,550
C x D		
NH x AP		1.00
Replacement cost new		84,550
Eff. age 34	REL	
Depr. 23%	0.77	0.77
S © M I	Full Value	$65,104

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. cost new	REL	Full Value
Garage (detached)	2	(Frm[1]) Msy.[2] Carport[3]	576 SF		C	34	Avg	1.00	8,940	0.77	6,884
Impl. shed	3	Pole frm 36' x 54' x 12'	1,944 SF	6.55	C	12	Avg	1.00	14,677	0.40	5,871
Corn crib-wood	4	Wood frm 15' x 25'	375 SF	—	C	9	Avg	1.00	9,900	0.40	3,960
Silo-Porc steel glass	5	Forage type 20' dia. x 32' ht.	—		C	7	Avg	1.00	43,130	0.77	33,210
Poultry house	6	1 sty wood frm	1,000 SF	12.01	C	9	Avg	1.00	12,010	0.55	6,606

Listed by:	John Smith	Total full value other buildings	$56,531
Date:	1/2/00	Total full value all buildings	$121,635

PRC-2 (R-1/00) (opposite PRC-1)

Property Record — Farm — Weighted Tract Method

Ownership/Mailing Address & Abbr. Legal

Weighted tract method

All land in the SE 1/4 of Section 29 south of the center line of the road

Zoning	Card No.	Township	Vol.	Tax Code	Area	Sect.	Block	Parcel	Unit
	1 of 1				01	29	400	001	0011

Division	Record of Ownership	Date	Deed Stamp	Sale Price

Cropland

Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Contrib.
17	100		100	28	2,800
43	130		130	35	4,550
119 D	90	0.95 (S)	86	1	86
280 B	100	0.99 (S)	99	14	1,386
280 C2	100	0.93 (S & E)	93	5	465
Total Contrib.		9,287 ÷	83 Ac. =	112	Wtd. PI

Rev. by: Year 2002

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland	83	112	235.66	19,560
P. Past 1/3	56	94	43.44	2,433
Other 1/6	7	114	41.67	292
Contrib. Waste 1/6L	6		1.81	11
Non-Contrib. Waste	2		0	0
Road	2		0	0
Total	156			22,296

Use	Acres	Value	Level	Assessed
Homesite	2	12,000	331/3	4,000
Residential Bldgs.		71,988	331/3	23,996
Farm Bldgs.		49,647	33 1/3%	16,549

Rev. by: Year _____

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland				
P. Past. 1/3				
Other 1/6				
Contrib. Waste 1/6L				
Non-Contrib. Waste			0	0
Road			0	0
Total				

Use	Acres	Value	Level	Assessed
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3%	

Permanent Pasture

Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Contrib.
8 F	57	0.73 (S)	42	4	168
43	130		130	1	130
74	117		117	12	1,404
107	120		120	4	480
119 D	90	0.95 (S)	86	17	1,462
119 E3	90	0.75 (S & E)	68	4	272
280 B	100	0.99 (S)	99	6	594
280 C2	100	0.93 (S & E)	93	8	744
Total Contrib.		5,254 ÷	56 Ac. =	94	Wtd. PI

Rev. by: Year _____

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland				
P. Past 1/3				
Other 1/6				
Contrib. Waste 1/6L				
Non-Contrib. Waste			0	0
Road			0	0
Total				

Use	Acres	Value	Level	Assessed
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3%	

Rev. by: Year _____

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland				
P. Past. 1/3				
Other 1/6				
Contrib. Waste 1/6L				
Non-Contrib. Waste			0	0
Road			0	0
Total				

Use	Acres	Value	Level	Assessed
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3%	

Other Farmland

Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Contrib.
43	130		130	4	520
280 C2	100	0.93 (S & E)	93	3	279
Total Contrib.		799 ÷	7 Ac. =	114	Wtd. PI

Rev. by: Year _____

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland				
P. Past 1/3				
Other 1/6				
Contrib. Waste 1/6L				
Non-Contrib. Waste			0	0
Road			0	0
Total				

Use	Acres	Value	Level	Assessed
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3%	

Rev. by: Year _____

Use	Acres	Wtd. PI	EAV/Ac.	EAV
Cropland				
P. Past. 1/3				
Other 1/6				
Contrib. Waste 1/6L				
Non-Contrib. Waste			0	0
Road			0	0
Total				

Use	Acres	Value	Level	Assessed
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3%	

Rural Section
Farm Building Schedules

General Purpose Barns

One-story barns (per SFFA)

Based on 9' average story heights

Base price includes concrete or masonry foundation, concrete floor, wiring, & lighting.	Construction type: Wood frame	Masonry	Pre-engineered steel frame	Pole frame
Base price For Gothic roof add ..... 25% For gambrel roof add..... 6%	$17.50	$16.25	$15.35	$16.45
Adjustments				
+ or - for story height variance	0.60	0.46	0.42	0.66
Brick on masonry	—	5.58	6.17	4.33
Brick on studs	1.44	—	3.28	1.44
Concrete block	—	1.20	1.78	-0.06
Poured concrete	—	-0.43	0.16	-1.68
Metal siding on girts	—	-1.07	-0.49	-2.32
Metal siding on studs	-1.97	—	-0.13	-1.97
Wood siding on girts	—	-0.70	-0.11	-1.95
Wood siding on studs	0.84	—	2.68	0.84
Grooved floor concrete	0.29	0.29	0.29	0.29
Pit, 6' deep	5.36	5.36	5.36	5.36
Slatted floor, concrete	8.67	8.67	8.67	8.67
Slatted floor, plastic	4.42	4.42	4.42	4.42
With insulation, R 19	0.44	0.44	0.44	0.44

Size Adjustments

Floor area	Factor	Floor area	Factor	Floor area	Factor	Floor area	Factor
2,000	1.15	4,000	1.01	7,000	0.93	11,000	0.87
3,000	1.06	5,000	0.97	9,000	0.90	13,000	0.86

Two-story barns (per SFFA)

Based on 9' average story heights

Base price includes concrete or masonry foundation, concrete floor, wiring, & lighting.	Construction type: Wood frame	Masonry	Pre-engineered steel frame	Pole frame
Base price For Gothic roof add ..... 25% For gambrel roof add..... 6%	$14.50	$13.25	$12.20	$14.05
Adjustments				
+ or - for story height variance	0.54	0.40	0.33	0.57
Brick on masonry	—	5.66	6.25	4.40
Brick on studs	1.53	—	3.39	1.53
Concrete block	—	1.32	1.91	0.06
Poured concrete	—	-0.29	0.31	-1.55
Metal siding on girts	—	-0.92	-0.33	-2.19
Metal siding on studs	-1.84	—	0.02	-1.84
Wood siding on girts	—	-0.55	0.04	-1.82
Wood siding on studs	0.95	—	2.81	0.95
Grooved floor concrete	0.29	0.29	0.29	0.29
Pit, 6' deep	5.36	5.36	5.36	5.36
Slatted floor, concrete	8.67	8.67	8.67	8.67
Slatted floor, plastic	4.42	4.42	4.42	4.42
With insulation, R 19	0.44	0.44	0.44	0.44

Size Adjustments

Floor area	Factor	Floor area	Factor	Floor area	Factor	Floor area	Factor
4,000	1.15	8,000	1.01	14,000	0.93	22,000	0.87
6,000	1.06	10,000	0.97	18,000	0.90	24,000	0.86

Typical life expectancies	
Grain bins	30
Silos	30
Barns	30
Stables	30
Poultry houses	20
Confinement barns	20
Equipment storage sheds	20
Miscellaneous sheds	15
Pole buildings	20
Dairy barns	30
Corn cribs	15

Sample Appraisal - Barn

Subject – Two-story barn
Grade – C
Remaining physical life – 15 years
Specifications – 34' x 60' x 20' height to eaves
Foundation – concrete wall and footings
Walls – Vertical wood siding on wood framing, wood sash windows and wood batten doors
Floor – Concrete

Step 1 — Base square foot price from schedule	$	14.50
Step 2 — Base price adjustments		
Walls: Wood siding/frame	+	0.95
Total	**$**	**15.45**
Step 3 — Wall height adjustment		
Base price includes a 9' avg. story height.		
Compute wall height adjustment for two-story barn with 20' wall height.		
10' – 9'= 1' wall height variance per story		
1' x 2 stories = 2' wall hght. adj.		
2' x 0.60 = 1.20 total wall height adj.	+	1.20
Total	**$**	**16.65**
Step 4 — Size adjustment percentage		
Calculate SFFA.		
34' X 60' X 2 = 4,080 SF		
Use the Size adjustments table to find the adjustment percentage for 4,080 SF	x	1.15
Total base price	**$**	**19.15**
Step 5 — Replacement cost new		
Multiply total base price by the SFFA to obtain replacement cost new	x	4,080
	$	**78,132**
Step 6 — REL factor		
Divide the remaining physical life by the typical life from the Typical life expectancy table.		
15 years ÷ 30 years = 0.50 REL factor		
Step 7 — Full value of the building		
Multiply the REL factor by the RCN from Step 5 to find the full value	x	0.50
	$	**39,066**

Rural Section
Farm Building Schedules

Pole frame buildings

Base price

Base price is for pole buildings with wood poles, wood truss roof, wood or metal siding, earth floor, one large sliding door, and one service door.

Type	Eave height	Price per square foot of ground area 600	1,000	1,400	2,000	3,000	4,000
Four sides closed	8’	$ 9.10	8.35	7.60	7.00	6.40	5.80
	10’	9.55	8.65	7.90	7.20	6.50	6.25
	12’	9.95	9.10	8.35	7.55	6.90	6.35
	14’	10.25	9.35	8.65	7.90	7.20	6.50
	16’	10.75	9.85	8.95	8.10	7.40	6.80
One side open	8’	8.10	7.25	6.45	5.75	5.10	4.60
	10’	8.50	7.60	6.80	6.10	5.45	4.90
	12’	8.85	7.95	7.15	6.35	5.70	5.05
	14’	9.15	8.10	7.30	6.50	5.75	5.20
	16’	9.65	8.65	7.65	6.90	6.15	5.50
Four sides open	8’	4.65	4.65	4.65	4.65	4.65	4.65
	10’	4.85	4.85	4.85	4.85	4.85	4.85
	12’	4.95	4.95	4.95	4.95	4.95	4.95
	14’	5.10	5.10	5.10	5.10	5.10	5.10
	16’	5.25	5.25	5.25	5.25	5.25	5.25

Floor (+)

Crushed stone	$0.45/SF
Asphalt	0.75/SF
Concrete (4”)	2.60/SF
Add for trenching	0.55/SF

Doors and windows (+) (per SF of door area)

Sliding door	$ 7.45
Walk-in door	23.05
Window	26.40

Miscellaneous (+)

Insulation	$1.00/SFSA
Waffle bd. 4’ x 8’	12.45/LF
Electric and lighting	0.95/SFSA
Roof vents	130.00 ea.

Multi-story poultry house

Base price includes concrete or masonry foundation, concrete floor, painted ceiling, gable roof, wiring, lighting, feed storage room, and a water supply line. Based on 9' story height. Add 25% Gothic roof, add 6% Gambrel roof.

Construction type	Wood Frame	Masonry	Pre-eng. steel frame	Pole frame
Base price	$10.15	$10.35	$10.65	$9.30
+ or — Adjustments				
+ or —for story height variance	0.22	0.25	0.23	0.20
Brick on masonry	—	4.12	4.56	4.56
Brick on studs	2.28	—	2.52	2.52
Concrete block	—	1.03	1.47	1.47
Poured concrete	—	-0.12	0.32	0.32
Metal siding on girts	—	-0.57	-0.13	-0.13
Metal siding on studs	-0.13	—	0.12	0.12
Wood siding on girts	—	-0.31	0.13	0.13
Wood siding on studs	1.86	—	2.10	2.10
Grooved floor concrete	0.29	0.29	0.29	0.29
Pit, 6' deep	5.36	5.36	5.36	5.36
Slatted floor, concrete	8.67	8.67	8.67	8.67
Slatted floor, plastic	4.42	4.42	4.42	4.42
With insulation, R 19	0.31	0.31	0.31	0.31

Size Adjustment	
Floor area	Factor
6,000	1.14
10,000	1.06
14,000	1.01
16,000	1.00
18,000	0.99
22,000	0.97
26,000	0.95
30,000	0.94

Rural Section
Silos

Steel Silos (glass lined)

Includes concrete foundation, steel roof, breather bag, ladder & platform

Diameter	Height	Cost
14’	30’	$ 24,140.00
	40’	26,670.00
	50’	28,790.00
Add for sweep arm auger		4,550.00
20’	30’	43,130.00
	40’	47,370.00
	50’	51,620.00
	60’	56,060.00
	70’	61,920.00
	80’	66,160.00
	90’	71,110.00
Add for sweep arm auger		6,070.00
Add for chain unloader		20,210.00
25’	60’	85,450.00
	70’	92,220.00
	80’	98,080.00
	90’	103,630.00
Add for chain unloader		30,310.00

Steel Silos (non-glass lined)

Includes concrete foundation, steel roof, ladder, & platform

Diameter	Height	Cost
14’	30’	$ 14,950.00
	40’	17,380.00
	50’	19,600.00
Add for sweep arm auger		4,550.00
20’	30’	26,770.00
	40’	30,090.00
	50’	35,150.00
	60’	39,190.00
	70’	43,330.00
	80’	46,360.00
	90’	49,800.00
Add for sweep arm auger		6,070.00
Add for chain unloader		20,210.00
25’	60’	59,800.00
	70’	64,540.00
	80’	68,690.00
	90’	72,520.00
Add for chain unloader		30,310.00

Concrete Silos

Per foot of height. Includes concrete foundation.

Diameter	Stave	Poured	Add for foundation	Add for unloader
12’	250.00	—	2,330.00	7,000.00
14’	260.00	—	2,720.00	7,000.00
16’	280.00	610.00	3,110.00	8,000.00
18’	310.00	550.00	3,490.00	8,000.00
20’	350.00	570.00	3,880.00	9,000.00
24’	440.00	710.00	4,660.00	9,000.00
30’	660.00	950.00	5,820.00	9,000.00

Rural Section
Confinement Buildings

Swine farrowing barns

Base price includes concrete or masonry foundation, concrete floor, painted ceiling, gable roof, wiring, lighting, feed storage room, and a water supply line.	Based on 9' average story height Construction type Wood frame	Masonry	Pre-engineered steel frame	Pole frame
Base price	$ 25.15	$ 25.70	$ 25.70	$ 23.25
For Gothic roof add 25%				
For gambrel roof add 6%				
Adjustments				
Add or subtract for story height variance	0.31	0.37	0.29	0.25
Brick on masonry	—	3.98	5.04	5.04
Brick on studs	2.22	—	2.74	2.74
Concrete block	—	0.50	1.56	1.56
Poured concrete	—	0.79	0.27	0.27
Metal siding on girts	—	-1.30	-0.25	-0.25
Metal siding on studs	-0.49	—	0.03	0.03
Wood siding on girts	—	-1.01	0.05	0.05
Wood siding on studs	1.75	—	2.27	2.27
Grooved floor concrete	0.29	0.29	0.29	0.29
Pit, 6' deep	5.36	5.36	5.36	5.36
Slatted floor, concrete	8.67	8.67	8.67	8.67
Slatted floor, plastic	4.42	4.42	4.42	4.42
With insulation, R 19	0.35	0.35	0.35	0.35

Size adjustments

Floor area	Factor	Floor area	Factor	Floor area	Factor	Floor area	Factor
6,000	1.08	14,000	1.01	18,000	0.99	26,000	0.97
10,000	1.03	16,000	1.00	22,000	0.98	30,000	0.96

Swine finishing and confinement barns (per SF)

The base price includes concrete or masonry foundation, concrete floor, sliding doors, gable roof, wiring, lighting, feed storage room, pen areas, utility room, and a water supply line.	Based on 9' average story height Construction type Wood frame	Masonry	Pre-engineered steel frame	Pole frame
Base price	$ 12.95	$ 13.05	$ 13.50	$ 11.15
For Gothic roof add 25%				
For gambrel roof add 6%				
Adjustments				
Add or subtract for story height variance	0.28	0.29	0.29	0.26
Brick on masonry	—-	5.20	5.57	5.57
Brick on studs	2.74	—-	3.02	3.02
Concrete block	—-	1.33	1.70	1.70
Poured concrete	—-	-0.10	0.27	0.27
Metal siding on girts	—-	-0.67	-0.30	-0.30
Metal siding on studs	-0.27	—-	0.01	0.01
Wood siding on girts	—-	-0.34	0.03	0.03
Wood siding on studs	2.22	—-	2.49	2.49
Grooved floor concrete	0.29	0.29	0.29	0.29
Pit, 6' deep	5.36	5.36	5.36	5.36
Slatted floor, concrete	8.67	8.67	8.67	8.67
Slatted floor, plastic	4.42	4.42	4.42	4.42
With insulation, R 19	0.39	0.39	0.39	0.39

Size adjustments

Floor area	Factor	Floor area	Factor	Floor area	Factor	Floor area	Factor
6,000	1.17	14,000	1.02	18,000	0.98	26,000	0.94
10,000	1.07	16,000	1.00	22,000	0.96	30,000	0.92

Rural Section
Confinement Buildings

Steel Grain Bins (including concrete floor)

Bu. Capacity	Each	Bu. Capacity	Each
1,255	$ 3,615.00	43,875	$ 37,780.00
1,790	4,770.00	53,400	45,040.00
2,330	5,695.00	60,315	54,080.00
2,865	6,390.00	73,280	62,290.00
3,420	6,550.00	79,555	70,625.00
4,200	7,085.00	96,490	89,145.00
4,975	8,765.00	109,090	95,800.00
5,750	10,570.00	126,730	112,285.00
7,300	12,105.00	152,870	136,260.00
8,850	14,420.00	165,535	148,360.00
10,400	16,655.00	176,000	154,065.00
12,175	16,650.00	206,000	184,715.00
14,295	17,865.00	246,000	227,030.00
16,105	18,990.00	266,000	250,325.00
18,895	20,535.00	305,000	270,775.00
20,590	21,880.00	358,225	332,080.00
24,135	23,360.00	363,560	331,790.00
25,625	25,305.00	420,935	395,755.00
30,030	27,195.00	500,000	483,745.00
31,175	29,890.00	Aeration/Bu.	0.10
37,525	33,145.00	Add for drying bin	30%

Steel frame round corn crib

Dia.	Height to eave	Bushel capacity	Cost each
12’	16’	575	$ 2,430.00
	21’	875	2,930.00
	24’	1,275	3,540.00
16’	18’	1,100	3,340.00
	23’	1,500	4,150.00
	28’	1,950	4,750.00

Base crib cost includes concrete foundation or equal, concrete floor, welded wire mesh exterior wall, metal cone roof. These buildings are generally obsolete.

Wood frame corn cribs

Square foot ground area	Welded wire each	Wood board each
300’	$ 6,770.00	$ 9,900.00
500’	9,400.00	12,730.00
700’	12,020.00	15,560.00
1,000’	14,750.00	21,620.00
1,500’	20,510.00	27,580.00
2,000’	26,160.00	41,820.00
4,000’	40,000.00	—

Concrete liquid manure tanks

Size cubic feet	Gallon Capacity	Price Each
4,000	30,000	$ 11,155.00
8,000	60,000	22,315.00
12,000	90,000	33,470.00
16,000	120,000	44,625.00
20,000	150,000	55,780.00

Abbreviations
Used in this Publication

A	**Attic**
A/C	Air conditioning
AEV	Agricultural economic value
Addn	Addition
AP	Appraiser or appraisal
Appr'ch	Approach
Apt	Apartment
Asmt	Assessment
Asess	Assessed
Att	Attached
Avg	Average
B	**Basement**
B & B	Board and batten
Blk	Block
BPA	Base price adjustment
BR	Building residual
Brk	Brick
Bsmt	Basement
BTU	British thermal unit
CB	**Concrete block**
CCAO	Chief county assessment officer
CDU	Condition, desirability, utility
CF	Cubic feet
CIP	Component-in-place
Cntrl	Central
Col	Column
Comm	Commercial or common
Comp	Composition or comparable
Conc	Concrete
Cond	Condition
Condo	Condominium
Cons't	Construction
Corr	Corrugated
C/P	Carport
CY	Cubic yards
DA	**Door area**
Depr	Depreciation
Dia	Diameter
D & M	Dressed and matched
DW	Drywall
Dwg	Dwelling
E/A	**Effective age**
EAV	Equalized assessed value
Econ	Economic
Eff	Effective
Eff Per	Effective perimeter
EFP	Enclosed frame porch
EGI	Effective gross income
EMP	Enclosed masonry porch
Excl	Excellent
FA	**Forced air**
Fac	Factor
FF	Front foot
FP	Fireproof or fireplace
FPM	Feet per minute
Frm	Frame
Frp	Fireproof
Ftg	Footing
Galv	**Galvanized**
Gar	Garage
GIM	Gross income multiplier
GPD	Gallons per day
GPH	Gallons per hour
GPM	Gallons per minute
GRM	Gross rent multiplier
HC	**Hollow core**
Hgt	Height
HP	Hard pan
HVAC	Heating, ventilating, and air conditioning
I	**Income**
Impr	Improvement
Ind	Industrial
Infl	Influence
KVA	**Thousand volt amperes**
KW	Kilowatts
L/B	**Load-bearing**
L:B	Land-to-building ratio
L & B	Land and building
LF	Linear feet
LR	Land residual
Metro	**Metropolitan**
M/S	Multi-story
MV	Market value
NH	**Neighborhood**
OC, O/C	**On center**
OD	Outside diameter
Ofc	Office
O/FP	Ordinary or fireproof
OFP	Open frame porch
OH	Overhead
OMP	Open masonry porch
Ord	Ordinary
P	**Paint**
P & B	Post and beam
Pchs	Porches
PI	Productivity index
Plstr	Plaster
PRC	Property record card
Pre-eng	Pre-engineered
PSF	Pounds per square feet
PSI	Pounds per square inch
PSIG	Pounds per square inch gravity
PVC	Polyvinylchloride
R	**Rate**
RCN	Replacement cost new
Rein	Reinforced
REL	Remaining economic life
Replc	Replacement
RFC	Reinforced concrete
Rnf	Reinforced
SA	**Supported area**
S/A	Supervisor of assessments
SF	Square feet of structural frame
SFCA	Square fee ceiling area
SFDA	Square feet door area
SFFA	Square feet floor area
SFGA	Square feet ground area
SFIA	Square feet insulation area
SFRA	Square feet root area
SFSA	Square feet serviced area
SFWA	Square feet wall area
Sprd	Spread
SS	Stainless steel
Stl	Steel
Sty	Story
Sz	Size
TC	**Tax code**
Temp	Temperature
U	**Upper or unit**
Unfin	Unfinished
Unt	Unit
V	**Value**
VLF	Vertical linear feet
W/	**With**
WB	Wall bearing
WC	Water closet toilet
Wd	Wood
WH	Wall height
W/O	Without
WR	Wall ratio
Wrhse	Warehouse

Abbreviations
Used in this Publication

Land Abbreviations

Ac	Acre	SF	Square feet
175 AV	Average depth of lot 175’	Topo	Topography
CI	Corner influence	UD	Undeveloped lot
LF	Linear feet	XD	Excess depth of lot
LI	Land improvement	XF	Excess frontage
R 75’	Real lot frontage of 75’		

Symbol Explanations

15,000	Indicated cost in dollar amount	1S	One side
1,940	Square feet in diagram Area - outside measurements	2S	Two sides
		16	Wall height ground to eave
#	Number; pounds		Square feet
1E	One end	/	Per
2E	Two (or both) ends		Diameter

Glossary

The following definitions refer to construction terminology as applied in this manual. This listing, however, is not complete for all building terms. Furthermore, the definitions reflect local usage as applied to building construction. Use the glossary only as a guide to better identify and understand the items referenced in this manual.

Acoustical plaster — Sound absorbing plaster applied to walls and ceilings. The plaster can be applied either by pneumatic spray or manual application.

Acoustical tile — Square or rectangular ceiling and wall covering units composed of material with an inherent property to absorb sound; usually made up of mineral fiber or insulated metal material.

Actual age — The number of years elapsed since an original structure was built.

Adverse land use — An incompatible land use that detrimentally affects other properties in its vicinity; for example, an industrial land use in a residential neighborhood.

Anodized aluminum — Aluminum that has had a hard, corrosion resistant, oxide film applied to it by an electrochemical process. A color anodizing process may be used to produce a number of colored finishes.

Ashlar stone — Rectangular or square shaped stone.

Attic — Space between the top of the ceiling joists and the roof.

Backfill — Material used to refill an excavation.

Backup — The inner, load-bearing or structural portion of a masonry wall, usually finished with face brick, stone, stucco, or other decorative or protective veneer.

Baseboard heating — A system in which the heating element, usually an electric resistance or circulating hot water, is located at the base of an outside wall.

Base plate — Horizontal member at the bottom of a column or post which transmits the column load to its foundation.

Batten — A narrow strip of wood used to cover the joints of parallel boards or plywood when used as siding. The resultant pattern is referred to as a board and batten.

Beam — A principal horizontal load-carrying structural timber, concrete, or steel member of a building.

Bearing wall — A wall that supports the floors, roof or any vertical load in a building in addition to its own weight.

Bench marks — Locations indicated on a durable marker by surveyors.

Beveled wood siding — Siding board of varying widths, with lower edge thicker than upper edge which is covered by lower edge of board above.

Bituminous paving — A mixture of bitumen or asphalt with graded aggregate used as a paving material for roadways and parking lots.

Board and batten — Vertical wood siding with narrow wood strips used to cover joints between boards.

Box girder — A girder having a hollow cross-section similar to that of a rectangular box.

Bridging — Bracing members between joists to keep them in place and give lateral rigidity.

BTU — British Thermal Unit. The amount of heat required to raise one pound of water one degree Fahrenheit. A common measurement of heat used to rate the capacity of building heating units.

Built-up roofing — A roof covering consisting of layers of saturated asphalt-felts cemented together with hot asphalt roofing cement.

Buttress — Masonry projection from wall to add strength.

B X wiring — Electrical wire in spiral formed flexible metal conduit; often called armored cable.

Cantilever — A beam or slab supported at one end only, or which projects beyond its support.

Casement — A window sash that opens on hinges that is fixed along either side.

Cast stone — A mixture of paste or mortar, with an aggregate of stone chips or fragments, which has the appearance of stone when cast into the desired form or structural shape.

Catch basin — In a drainage system, a chamber designed to intercept solids and prevent their entrance into the system.

Cavity wall — A masonry or concrete wall consisting of two wythes with air space between them; the inner and outer wythes are tied together with metal ties.

Cellular concrete — Construction with concrete components that have been cast with voids for sound and thermal insulation and to decrease weight.

Ceramic coating — A coating made of nonmetallic mineral such as clay. These pieces of clay are attached to walls with cement or other adhesive, creating durable, decorative and dirt-resistant surfaces.

Clear height — Distance between top of a finished floor and lowest part of ceiling or truss above.

Common brick — Local inexpensive clay brick, no uniform face or precision mold.

Common wall — Shared wall between two distinct sections of a building or buildings. Not a partition.

Concrete tilt-up panels — A method of concrete construction in which wall sections are cast horizontally at a location adjacent to their eventual position and tilted into place after removal of the molds.

Conduit — A channel or tube to convey water or other fluid, as a pipe, canal, aqueduct, or flume. A protective pipe or tube for electric wires or cables.

Coping — Top capping or covering of a wall.

Corbel— Supporting bracket of stone, brick, or wood projecting from side of wall.

Cornice — Horizontal molding along top of wall or building; ornamental.

Corrugated metal — Sheet metal that has been rolled into a parallel wave pattern for stiffness or rigidity.

Course — Continuous horizontal layer of structural units - brick, stone, slate, or shingles.

Craneway — The steel column, girder support beams and rails on which a crane travels.

Curtain wall — A non-bearing wall between columns or supports that is supported at each story.

Dead load — The weight of the structure itself plus any permanent fixed loads.

Dividing wall — The wall between units of a multi-family dwelling.

Double-glazed window — A window with two panes of glass with an air space between for increased thermal and sound insulation.

Drain tile — Tile laid with loose joints around footing to collect drainage water and carry it away from a building.

Dressed and matched — Planed, faced boards or planks with a machined groove on one edge, corresponding tongue on the other edge (D & M).

Drilled caisson — A hole drilled into the ground then filled with concrete. Depending on soil conditions, a pipe lining may be included.

Glossary

Drywall — Type of interior wall surface (plasterboard, gypsum board).

Eaves — lower edge of a roof, overhanging the side walls of a building.

Economic life — The estimated period over which it is anticipated that a property may profitably be used. The period over which a property will yield a return on and of the investment, over and above the economic rent due to land. This period can never exceed the physical life of the property and generally is shorter than physical life or endurance.

Effective age — The age in years that is indicated by the condition of a building. If a building has been maintained better than average, its effective age is less than the actual age; if there has been inadequate maintenance, it is greater. A 60-year old building may have an effective age of 20 years due to rehabilitation or modernization.

Elevation — A drawing of the front, side, or rear of a building. The height above surface of the earth or the vertical distance from a given reference point.

Epoxy type floor — A strong, hard, resistant, adhesive, resin floor covering.

Exposed aggregate — Mineral fragments or small stones imbedded in concrete in such a manner as to expose the upper surface to give a pleasing visual effect.

Face brick — Generally, a hard baked brick with either smooth or rough texture face in various colors and sizes, used to finish the exterior walls of a building and some interior walls.

Fascia — Flat finishing board, band, or face used in combination with moldings; also used on cornice face.

Fenestration — The design and disposition of windows or other openings in a building wall.

Fiberboard — A general term referring to any of various panel products, such as particleboard, hardboard, chipboard, or other type formed by bonding wood fibers by heat and pressure.

Fill — The material, usually earth, sand or gravel, used to raise the ground level up to a desired grade.

Fireproofing — The use of noncombustible materials to protect structural components so that the building can withstand a complete burnout of contents without losing structural stability.

Fire wall — A wall with qualities of fire-resistance and structural stability that subdivides a building into areas to control the spread of fire.

Fluorescent light — A low-pressure mercury electric-discharge in which a phosphor coating on the inside of a tube transforms some of the ultraviolet energy generated by the discharge into invisible light.

Footing — The wide projecting base of a foundation, pier, or column that transmits the building load to the ground.

Foundation wall — A wall below the floor level and usually below or partly below grade providing support for the exterior perimeter wall or other structural parts of a building.

Framing — The wood, steel, or concrete load-bearing skeleton of a structure.

Furring — The strips of wood or metal applied to a wall or other surface to make it level, to form an air space, or to provide fastening surface for a finish covering.

Galvanize — The process of protectively coating iron or steel with zinc, either by immersion or electrolyte.

Gambrel roof — A roof whose slope on each side is interrupted by an obtuse angle that forms two pitches on each side, the lower slope being steeper than the upper (red barn roof).

Girder — The long, heavy beam spanning from one foundation wall to the other. The girder may be supported at intervals by bearing posts on foundation piers.

Girt — Horizontal secondary framing member extending between columns or studs; stiffens frame, provides support for siding or sheathing.

Grade — Indicates plane of ground surface; also denotes established street and sidewalk planes.

Grade beam — Concrete beam laid at ground level on piers rather than on foundation wall and footing.

Granolithic topping — Finishing material composed of concrete and pea gravel.

Gravel stop — Ridge on perimeter of roof to retain gravel.

Grease interceptor — A receptacle installed to prevent oil, grease, sand, or the materials from depositing into a drainage system.

Ground area — Area computed from exterior dimensions of ground floor.

Gunite — Concrete blown into place by compressed air.

Gypsum — A common mineral, hydrated calcium sulphate, white in color, soft, and easily crumbled.

Gypsum board (also called drywall) — Prefabricated sheet of paper-covered gypsum, used as plaster substitute; allows paint, texture, or wallpaper finishing.

H column — A structural member of rolled steel whose cross section resembles the capital letter “H” and is cast in a concrete column.

Hardboard — Boards formed by combining shredded wood chips and glue with pressure.

Header — In masonry, a brick or building stone laid across the thickness of a wall with one end toward the face of the wall. In carpentry, a wood beam set at right angles to joists to provide a seat or support; a wood lintel.

Heat pump — A refrigeration unit with a reversible cycle so that it may function to cool the building or be reversed and heat the building.

Homogeneous — In real estate, a term used to describe an area or neighborhood in which the property types and uses are similar and harmonious and the inhabitants have similar cultural, social, and economic backgrounds.

Incandescent light — An electric discharge light created by heating a tungsten filament until light is produced.

Inner wall — A load-bearing wall dividing areas within a building.

Jalousie window — A window having stationary or adjustable slats angled so as to permit ventilation while simultaneously preventing the entrance of rain.

Jib crane — A crane having a swinging hoisting arm with a cable pulley at its end, as opposed to a travelling overhead crane, which does not.

Joist — One of a series of parallel beams to support floor and ceiling loads, supported in turn by larger beams, girders, of bearing walls. Members supporting roofs with slopes, not exceeding 3 feet or rise in 12 feet of run, are roof joists (compare to rafters).

Lap siding — Board of varying widths with lower edge that is covered by lower edge of board above (also beveled siding).

Glossary

Lath — A building material of wood, metal, or gypsum on which a plaster cover is spread.

Lattice — Openwork panel of crossed strips, rods, or bars of wood or metal used as a screen.

Light well — Open area to provide light and air within building or around basement window subsurface.

Linoleum — An inexpensive composition material made up of solidified linseed oils, gums, cork dust, and pigments, laid on burlap as a backing and possesses a low resistance to staining, dents, and abrasions.

Lintel — Horizontal structural member spanning a door, window, or opening to support weight of above walls.

Live load — Any moving or variable load applied to a structure, expressed in pounds per square foot of floor and roof areas for various types of building occupancy *(e.g.,* weight of people, merchandise, or stock on a floor; snow load or wind pressure on a roof).

Load-bearing (L/B) wall — Weight of wall and portion of floor/roof load are supported by the wall, remainder is supported by the interior framing.

Mansard roof — Roof type with two slopes (pitches) on each of four sides; lower slopes are steeper than upper.

Mercury vapor light — An electric discharge light that produces a blue-white light by creating an arc in mercury vapor enclosed in a globe or tube. These lamps are classified as either low-pressure or high-pressure.

Metal lath — Metal grill-like material to form a base for plaster.

Mezzanine — An intermediary floor having less area than the regular floors.

Mill type construction — A type of building construction using a heavy timber frame of bearing wall supports, floor posts and beams, and laminated wood floor.

Monitor — A raised structure on a roof having windows or louvers for ventilating or lighting the building, as a factory or warehouse.

Mud sill foundation — A foundation constructed of heavy wood timbers laid on the ground.

Non-bearing wall — A wall that supports only its own weight; also a curtain wall.

Normal life — Reasonable life expectancy of new building based on average experiences, normal wear, obsolescence; estimates derived from mortality data and study of properties operating under average conditions.

On-center — Center-to-center distance from one structural member to another; term used for spacing studs, steel columns, posts, joists, rafters, *etc.*

Overhang — An upper level projection of a building; extends beyond the lower structure.

Overhead door — A door constructed of a single leaf that is swung up from the ground level and assumes a horizontal position above the entrance way it serves.

Pan construction — A type of concrete floor in which pan forms are used to create intersecting ribs and resulting in a waffle-like under surface.

Panel wall — A pre-fabricated wall section erected in one piece.

Parapet — The portion of a wall that projects above the roof line.

Partition — A wall that subdivides spaces within any story of a building; usually non-load bearing.

Party wall — A wall built along the dividing line between adjoining buildings for their common use; also common wall.

Perimeter — the total length of the periphery of a given area; the distance around the outside of a building.

Pilaster — An upright column or pillar forming part of a masonry or similar exterior wall providing added strength, particularly at point of load concentration such as for a truss support.

Piling — Columns, driven below the ground area to bear the foundation of a structure when the surface soil cannot.

Pitch — The angle of a roof; expressed in inches of rise per foot of run, or by ratio of the rise to the span.

Plate glass — High quality glass of the same composition as window glass but thicker, up to 1 ¼ inches, with ground and polished faces, usually used for large areas in a single sheet.

Ply — Term indicates number of thicknesses or layers of roofing felt, veneer in plywood, or built-up materials.

Porcelain enamel — A coating of silicate glass bonded to metal by fusion.

Polystyrene — A low-cost foamed plastic weighing about one pound per cubic foot with good insulating properties and resistance to grease.

Pre-cast panels — Concrete members cast to a desired shape prior to the time that they are placed in a structure. They are attached to the structure, either by bolting or welding of the reinforcement and then grouting being laid in a bed of mortar, or by combinations of these methods.

Pre-stressed concrete — Concrete in which the reinforcing is pulled before concrete sets; then tension released after concrete sets. This gives the item more tensile strength.

Purlin — A horizontal beam in a roof structure that may rest on trusses or posts supporting the common rafters.

Radiant heat — A heating system in which heat is transmitted by radiation and convection from surfaces heated by hot water in pipes or electric wires embedded in the surfacing material.

Remaining economic life (REL) — Appraiser's projected estimate of date that a property can no longer perform economically. Also, remaining serviceable life or remaining useful economic life.

Ridge — Horizontal line where the two sloping roof surfaces meet. Also designates the highest horizontal roof member.

Rise — Distance a rafter extends in a vertical direction. Also, measurement of height of an individual step.

Riser — Vertical board closing the space between stairway treads.

Rolling door — A door constructed of a single leaf that rolls open parallel to the opening on ball-bearing rollers and a metal track.

Roll-up door — A device consisting of horizontal interlocking metal slats that ride along wall guides. When the door is opened, the slats coil around a barrel assembly located above the door.

Romex wiring — Electrical wire in flexible nonmetallic sheathing such as plastic.

Rubblework — Masonry made with irregular pieces laid without uniform courses or joints.

Sandwich panel — A core of insulation covered on both sides with such materials as concrete, metal, or asbestos.

Sash — The framework of a window that holds the glass.

Sawtooth roof — A roof with a profile similar to the teeth in a saw composed of a series of single-pitch roofs, whose shorter or vertical side has windows for light and air.

Shake shingles — Wood roofing shingles with at least one surface having a split-faced grain.

Glossary

Sheathing — The first covering of boards, plywood, or wallboard placed over exterior wall studding or roof rafters.

Sheet rock — Trade name for drywall sheets with a gypsum base and paper covering.

Sleeper — A timber laid horizontally, as on the ground, to support something above it. A strip of wood anchored to a concrete floor or nailed to subflooring and to which the finished floor is nailed.

Sodium light — An orange-yellow light produced from a low-pressure sodium vapor lamp.

Span — Horizontal clear distance between supports, as those of a bridge, or between columns of a structure.

Split-face block — A concrete masonry block with one or more faces produced by purposeful fracturing of the block to provide architectural effects in masonry wall construction.

Structural glass — Rectangular panels of glass used as finish for walls.

Stucco — A cement plaster used for coating exterior wall and other exterior surfaces of buildings.

Stud — The inner parallel vertical wood or steel framing of walls and partitions.

Subfloor — A floor laid on top of the floor joists, to which the finished floor is fastened (also floor sheathing).

Tectum — Tongue and groove sheathing board with layered fiber and cement enclosing a foam core.

Terra-cotta — Units of hard, unglazed, fired clay, used for ornamental masonry.

Terrazzo — A type of venetian marble mosaic in which portland cement is used as a binding substance.

Transite — Building material made of asbestos fibers and cement under pressure.

Traveling overhead crane — A lifting machine carried on a horizontal girder, reaching between rails above each side of a workshop. It consists of a hoisting cab that can travel from end to end on the girder. The whole area between the rails can be traversed by the cab.

Truss — A structural component composed of a combination of members, such as beams, bars and ties, usually arranged in triangular units to form a rigid framework for supporting loads over a span.

Unit heater or space heater — A complete heating unit, without ducts, for heating the area in which it is located, such as a room or other part of a building less than the complete area.

Vertical lift panel door — A door constructed of panels that roll open from the ground level and assumes a horizontal position above the entrance way it serves.

Vinyl-asbestos tile — A resilient semi-flexible floor tile, composed of ground limestone, plasticizers, pigments, PVC binder, and asbestos fiber reinforcing. This product is being replaced by vinyl composition tile.

Vinyl tile — A floor tile similar to vinyl-asbestos floor tile except the asbestos has been replaced by glass fiber reinforcing.

Wainscot — The lower part of an interior wall covering that is finished with a different material than the upper part.

Wall-bearing construction — Structural system in which the floor and roof systems are carried directly by the walls rather than by a structural framing system (load bearing walls).

Yard improvement — Construction items on the building site that are not part of the main structure, such as a driveway, walks, fences, retaining walls, *etc.*

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